

# STIC Search Report

## STIC Database Tracking Number: 141250

TO: Hoa V Le

Location: Rem 9D61

Art Unit : 1752 January 5, 2005

Case Serial Number: 10/706112

From: Usha Shrestha Location: EIC 1700 REMSEN 4B28

Phone: 571/272-3519

usha.shrestha@uspto.gov

#### Search Notes

When searched for both compounds as you requested I-A II-B, got a lots of hit which is LIO on search hist. so again, as you requested especially the Y-I compound to search, the search was focus on naphthalene ring I its ring identifyer (RID) to get the results.





# STIC Search Results Feedback Form

71		-4		***	Service Servic	<b>500</b>	***	224
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2			486	ø 188	7 E	B)	3	<i>B</i>
	~~	A	- 2	1 332	<b>A</b>	₩.		

Questions about the scope or the results of the search? Contact the EIC searcher or contact:

Kathleen Fuller, EIC 1700 Team Leader 571/272-2505 REMSEN 4B28

Vo	luntary Results Feedback Form
AA	I am an examiner in Workgroup: Example: 1713 Relevant prior art <b>found</b> , search results used as follows:
	<ul> <li>102 rejection</li> <li>103 rejection</li> <li>Cited as being of interest.</li> <li>Helped examiner better understand the invention.</li> <li>Helped examiner better understand the state of the art in their technology.</li> </ul> Types of relevant prior art found:
	☐ Foreign Patent(s) ☐ Non-Patent Literature (journal articles, conference proceedings, new product announcements etc.)
>	Relevant prior art not found:  Results verified the lack of relevant prior art (helped determine patentability).  Results were not useful in determining patentability or understanding the invention.
Coi	nments:

Drop off or send completed forms to EIC1700 REMSEN 4B28



# SEARCH REQUEST FORM

### Scientific and Technical Information Center

Mail Box and Bldg/Room Location:   REM	mber 30 <u>C71-272 - 12</u> <b>P61</b> Resulted please prioritize	Examiner #: 60626 Date: 23 Le. 332 Serial Number: 10/706, 112 ults Format Preferred (circle): PAPER DI ze searches in order of need.	SK E-MAIL	
**************************************	arch topic, and describe a words, synonyms, acron at may have a special me	as specifically as possible the subject matter to be nyms, and registry numbers, and combine with the eaning. Give examples or relevant citations, auth	e searched. e concept or	
Title of Invention:  Inventors (please provide full names):	- J. Heav.	se see the attachment		
appropriate serial number.		(parent, child, divisional, or issued patent numbers) a		
•		ounds of the gener		
\		specially the electer		
Y- 1 on page 48 is in an alkaline	of the opposes so howk you	ecification. The colution with pH of 7 or	rupounds greater	
		f *		
STAFF USE ONLY Searcher: Usla Shesta	Type of Search NA Sequence (#)	Vendors and cost where applicable	******* e	
Searcher Phone #:	AA Sequence (#)	Dialog		
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Date Searcher Picked Up: 1/4/05	Bibliographic	Dr.Link		
Date Completed: 1505	Litigation	Lexis/Nexis		
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Clerical-Prep-Time:2.D	-Patent-Family-			
Online Time:	Other	Other (specify)		
PTO-1590 (8-01)				

10/706,112

Attorney's Docket No. <u>019519-409</u>
Application No. <u>Unassigned</u>
Page 9

#### AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### **LISTING OF CLAIMS:**

1. - 15. (Canceled)

16. (New) A developing solution comprising an alkali aqueous solution containing 2 to 10 wt% of at least one of a nonionic aromatic ether-based activator represented by the following formula (I-A) and a nonionic aromatic ether-based activator represented by the following formula (I-B):

$$R_1 + O(CH_2CH_2O)_n(CH_2CH(CH_3)O)_mH$$
 (I-A)

wherein  $R_1$  represents H or an alkyl group having from 1 to 100 carbon atoms, and n represents an integer of from 0 to 100 and m represents an integer of from 0 to 100 and the sum of n+m is at least 3,

$$R_2 + O(CH_2CH_2O)_n(CH_2CH(CH_3)O)_mH$$
 (I-B)

wherein R<sub>2</sub> represents H or an alkyl group having from 1 to 100 carbon atoms, and n and m each represents an integer of from 0 to 100.

Attorney's Docket No. <u>019519-409</u>
Application No. <u>Unassigned</u>
Page 10

- 17. (New) The developing solution as claimed in claim 16, wherein the developing solution contains an inorganic alkali agent.
- 18. (New) The developing solution as claimed in claim 16, wherein the developing solution has a pH of 13.0 or less.
- 19. (New) The developing solution as claimed in claim 16, wherein the developing solution contains a carbonic acid or a carbonate.
- 20. (New) The developing solution as claimed in claim 16, wherein the developing solution contains a chelating agent containing a divalent metal.
- 21. (New) The developing solution as claimed in claim 16, wherein the developing solution has an electrical conductance of from 3 to 30 S/cm.
- 22. (New) The developing solution as claimed in claim 16, wherein the alkali aqueous solution contains 2 to 10 wt% of the nonionic aromatic ether-based activator represented by formula (I-B).
- 23. (New) The developing solution as claimed in claim 16, wherein the developing solution contains a silicate.



TPU

Attorney's Docket No. <u>019519-409</u>

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

n re Patent Application of	) \
Mitsumasa TSUCHIYA et al.	) Group Art Unit: 1752
Application No.: 10/706,112	) ) Examiner: H.V. Le
Filed: November 13, 2003	) Confirmation No.: 7708
For: DEVELOPING SOLUTION FOR PHOTOSENSITIVE LITHOGRAPHIC PRINTING PLATE, PLATE-MAKING METHOD OF LITHOGRAPHIC PRINTING AND PHOTOSENSITIVE	, ) ) ) )

#### RESPONSE TO ELECTION OF SPECIES REQUIREMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In response to the Official Action dated October 27, 2004, applicants hereby elect species Y-1 defined on page 48 of the specification which is within the definition of formula (I-B). Claims 16-23 read on this elected species. This election is made without traverse with the understanding that applicants will be entitled to the rights set forth in 37 C.F.R. §1.141 in the event that a generic claim is found allowable.

Favorable consideration on the merits is respectfully requested in light of the foregoing discussion. Should the Examiner wish to discuss any aspect of the present application, he is invited to contact the undersigned attorney at the number provided below.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: November 15, 2004

Robert G. Mukai

Registration No. 28,531

P.O. Box 1404 Alexandria, Virginia 22313-1404

# Examples of the Compounds Represented by Formula (I)

	A — W	
Y-1	$O \leftarrow O \rightarrow H$	
Y-2	$O \rightarrow O \rightarrow H$	
Y-3	$O(O)_5H$	
Y-4	O + O + O + O + O + O + O + O + O + O +	
Y-5	0 ( O) <sub>5</sub> ( O) <sub>8</sub> H	
Y~6	$O \left( O \right)_{15} H$	
(t)C <sub>4</sub> I	$H_{g}$	
Y-7	$O \rightarrow O \rightarrow IS$	
(n)C <sub>8</sub> H <sub>17</sub>	,0	
Y-8	O ( O) 15 H	
C <sub>3</sub> H <sub>7</sub> CC	$\mathcal{O}_{2}$	
Y-9	O (O) 15 H	
(ÇH <sub>3</sub> ) <sub>2</sub>	2N	

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     FILE 'LREGISTRY' ENTERED AT 14:39:22 ON 05 JAN 2005
L1
               STR
L2
               STR
L3
               STR
L4
               SCR 2043
L5
             0 S L1 AND (L2 OR L3) AND L4
L6
            21 S L5 FUL
    FILE 'REGISTRY' ENTERED AT 14:59:40 ON 05 JAN 2005
L7
               STR
L8
               STR L1
             50 S (L7 OR L8) AND (L2 OR L3) AND L4
               E NAPHTHALENE/CN
L10
        274322 S L9 FUL
L11
          81569 S L10 AND 1-2/NC
L12
          2978 S L11 AND 591.49/RID
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          7209 S L12
L13
L14
            50 S L13(L) PHOTOSENSITIV?
    FILE 'CAPLUS' ENTERED AT 15:47:49 ON 05 JAN 2005
L15
             7 S L14 AND LITHOGRAPH? (2A) PRINT?
L16
            70 S L13 AND LITHOGRAPH? (2A) PRINT?
L17
           141 S L13(L) (PHOTOSENS? OR LIGHTSENS? OR SENSIT?)
L18
            13 S L17 AND LITHOGRAP? (5A) PRINT?
L19
            47 S L16(L) (PHOTOSENS? OR LIGHTSENS? OR SENSIT?)
L20
            26 S L19 AND (SOLUTION? OR SOLN# OR SOLVENT?)
L21
            33 S L20 OR L18 OR L15
L22
           159 S L13(L) (SOLUTION? OR SOLN# OR SOLVENT?)
L23
            3 S L22(L) (PHOTOSENS? OR LIGHTSENS? OR SENSIT?)
L24
            33 S L21 OR L23
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O—— CH2—— CH.
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RAPH ATTRIBUTES:

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TEREO ATTRIBUTES: NONE



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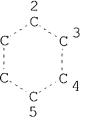
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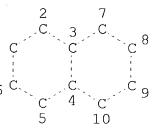
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#### RAPH ATTRIBUTES:

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UMBER OF NODES IS 10

#### TEREO ATTRIBUTES: NONE

274322 SEA FILE=REGISTRY SSS FUL (L7 OR L8) AND (L2 OR L3) AND

L4

11 81569 SEA FILE=REGISTRY ABB=ON PLU=ON L10 AND 1-2/NC

2978 SEA FILE=REGISTRY ABB=ON PLU=ON L11 AND 591.49/RID

13 7209 SEA FILE=CAPLUS ABB=ON PLU=ON L12

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24 ANSWER 1 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

CCESSION NUMBER:

2004:963462 CAPLUS

OCUMENT NUMBER:

141:417961

ITLE:

Alkaline developing liquid for photosensitive

lithographic printing plate

NVENTOR(S):

Konuma, Taro; Suzuki, Toshitsugu

ATENT ASSIGNEE(S):

Konica Minolta Medical & Graphic, Inc., Japan

Jpn. Kokai Tokkyo Koho, 34 pp.

CODEN: JKXXAF

OCUMENT TYPE:

Patent

ANGUAGE:

OURCE:

Japanese

AMILY ACC. NUM. COUNT:

ATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004317835	A2	20041111	JP 2003-112589	
				200304
RIORITY APPLN. INFO.:			JP 2003-112589	1 /
				200304

B Title liquid comprises an alkaline substance and water-soluble urfactant and

is used to develop the formed image after laser exposure on a lithog. printing plate which has a photosensitive

layer formed from a composition including ethylenic monomers, olymerization

initiators, and polymer binders. The bubble height during the bubbling (A) and bubble height three min. after bubbling (B) have a B to A ratio of 0.1-0.7.

81503-86-8

Τ

(alkaline developing liquid for photosensitive lithog
. printing plate)

81503-86-8 CAPLUS

Poly(oxy-1,2-ethanediyl),  $\alpha$ -sulfo- $\omega$ -(2-naphthalenyloxy)-, sodium salt (9CI) (CA INDEX NAME)

#### Na

ICM G03F007-32

ICS G03F007-00

74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

alk developing liq photosensitive lithog printing

Photolithography

Surfactants

(alkaline developing liquid for photosensitive lithog. printing plate)

ΙТ Alcohols, uses (alkoxylated; alkaline developing liquid for photosensitive lithog. printing plate) ΤI Polyoxyalkylenes, uses (mono(alkyl group)-terminated; alkaline developing liquid for photosensitive lithog. printing plate) T1312-76-1, Potassium silicate 3546-96-1 9002-92-0, Polyethylene glycol monododecyl ether 25638-17-9 37251-67-5, Ethylene oxide-propylene oxide copolymer monodecyl ether 37311-01-6 64366-70**-7 81503-86-8** 82009-26-5 102640-44-8 (alkaline developing liquid for photosensitive lithog . printing plate) L24 ANSWER 2 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN ACCESSION NUMBER: 2004:842565 CAPLUS

OCCUMENT NUMBER: 2004:64236

FITLE: Processing of sensitized

lithographic printing plates,
and automatic processor for it

INVENTOR(S): Suzuki, Toshitsugu

PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.

CODEN: JKXXAF

OCCUMENT TYPE: Patent Japanese

TAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

łΒ

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JP 2004286794	A2	20041014	JP 2003-75503	200202
PRIORITY APPLN. INFO.:			JP 2003-75503	200303 19
				200303 19

#### A photosensitive lithog. printing

plate having a photopolymerizable composition containing ethylenic nonomers,

photopolymn. initiators, and polymer binders on an Al sheet support is exposed and developed with an aqueous developing solution containing alkali metals in an automatic processor, wherein the processor is capable of keeping the temperature of the developing solution at 25-40° and replenishing the moisture of the developing solution In the replenishment, the needed moisture amts. are calculated on the basis of whether the processor is

on operation or not and whether the temperature control is continued

not. The process suppresses generation of sludges in the developing agent.

69778-08-1 126305-25-7

(developing solution component; automatic processor for developing sensitized lithog.

printing plate with replenishing developing agent with
moisture)

69778-08-1 CAPLUS

or

ΙΤ

RN

CN

RN

CN

Poly(oxy-1,2-ethanediyl),  $\alpha$ -naphthalenyl- $\omega$ -hydroxy-(9CI) (CA INDEX NAME)

$$HO = \begin{bmatrix} CH_2 - CH_2 - O \end{bmatrix}_n D1$$

126305-25-7 CAPLUS

Poly(oxy-1,2-ethanediyl),  $\alpha$ -sulfo- $\omega$ -(naphthalenyloxy)-, sodium salt (9CI) (CA INDEX NAME)

#### Na

IC ICM G03F007-30

ICS G03F007-00

74-6 (Radiation Chemistry, Photochemistry, and Photographic and

ST

ΙT

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L24

ACCESSION NUMBER:

```
Other Reprographic Processes)
Section cross-reference(s): 38
lithog plate development automatic processor replenishment moisture;
printing lithog plate automatic processor
replenishment moisture
Lithographic apparatus
   (automatic developing processor; automatic processor for
   developing sensitized lithog.
   printing plate with replenishing developing agent with
   moisture)
Lithographic plates
   (automatic processor for developing sensitized
   lithog. printing plate with replenishing
   developing agent with moisture)
Lithography
   (development; automatic processor for developing
   sensitized lithog. printing plate
   with replenishing developing agent with moisture)
60-00-4, EDTA, uses 98-73-7, p-t-Butylbenzoic acid
                                                       102-71-6D.
Triethanolamine, salts with N-coco acyl alanine
                                                  302-72-7D,
Alanine, N-coco acyl derivs., salts with triethanolamine
1310-58-3, Potassium hydroxide, uses
                                       1312-76-1, Potassium silicate
10117-38-1, Potassium sulfite
                                25638-17-9, Sodium
butylnaphthalenesulfonate 69778-08-1
                                       106392-12-5,
Ethylene oxide-propylene oxide block copolymer 126305-25-7
   (developing solution component; automatic processor for
   developing sensitized lithog.
  printing plate with replenishing developing agent with
  moisture)
773881-20-2P, M 3 (monomer)
                              775303-38-3P
   (photopolymd. layer on lithog. plate; automatic processor for
  developing sensitized lithog.
  printing plate with replenishing developing agent with
  moisture)
109-17-1, NK ester 4G
                        123968-25-2, Sumilizer GS
                                                    150103-43-8,
Ethyl methacrylate-methacrylic acid-methyl methacrylate copolymer
glycidyl methacrylate ester
   (photopolymerizable composition component; automatic processor for
  developing sensitized lithog.
  printing plate with replenishing developing agent with
  moisture)
7429-90-5, Aluminum, uses
   (support; automatic processor for developing sensitized
  lithog. printing plate with replenishing
  developing agent with moisture)
```

ANSWER 3 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

2004:802422 CAPLUS

DOCUMENT NUMBER:

141:322605

TITLE:

SOURCE:

AB

ΙT

Method for making and developing

lithographic printing plate

INVENTOR(S):

Takamiya, Shuichi

PATENT ASSIGNEE(S):

Fuji Photo Film Co., Ltd., Japan U.S. Pat. Appl. Publ., 39 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	<del></del>			
US 2004191693	A1	20040930	US 2004-808310	200402
JP 2004295009	A2	20041021	JP 2003-90636	200403
				200303
PRIORITY APPLN. INFO.:			JP 2003-90636	A 200303

OTHER SOURCE(S): MARPAT 141:322605

A method for making a lithog. printing plate comprising the steps of: light-exposing to IR radiation, a heatsensitive presensitized plate of a pos.-working mode for use in making a lithog. printing plate, said presensitized plate comprising a substrate and an image recording layer which comprises a novolak resin containing xylenol as a monomer component and an IR absorbing dye; and developing the light-exposed plate with an alkaline developing solution comprising at least one surfactant selected from the group consisting of anionic surfactants and amphoteric surfactants. The object of the present invention is to provide a method of making a printing plate that is capable of ensuring stable development for a long period of time and producing high-definition images with improved sharpness without the generation of sludge in a developing solution that could result from some component for use in an image recording layer of the image recording material.

126305-25-7 768377-85-1

(surfactant; method for making and developing lithog. printing plate)

RN 126305-25-7 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -sulfo- $\omega$ -(naphthalenyloxy)-, sodium salt (9CI) (CA INDEX NAME)

$$HO_3S$$
  $O-CH_2-CH_2$   $O-D1$ 

Na

RN 768377-85-1 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha,\alpha'$ - (methylenedinaphthalenediyl)bis[ $\omega$ -(sulfooxy)-, disodium salt (9CI) (CA INDEX NAME)

#### ●2 Na

IC ICM G03C001-76

NCL 430302000

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST lithog presensitized printing plate development

```
ΙT
     Phenolic resins, properties
        (novolak, cresol-based; method for making and developing
        lithog. printing plate)
IT
     Lithographic plates
        (presensitized; method for making and developing lithog
        . printing plate)
ΙT
     124996-93-6P, Acrylonitrile-N-(p-aminosulfonylphenyl)
     methacrylamide-ethyl methacrylate copolymer
        (method for making and developing lithog.
        printing plate)
     100347-03-3, Formaldehyde, polymer with 2,3-dimethylphenol,
IT
     3-methylphenol and 4-methylphenol 112504-03-7,
     m-Cresol-p-cresol-3,5-xylenol copolymer
        (method for making and developing lithog.
        printing plate)
ΙΤ
     50-70-4, D-Sorbitol, uses
                                  515-42-4
                                           532-02-5
                                                        683-10-3
     1331-64-2
                 2386-53-0
                             3546-96-1
                                         14960-06-6
                                                       25155-30-0
     26545-58-4
                  27177-77-1
                               28519-02-0
                                             30898-83-0
                                                          31116-81-1
     32072-67-6
                  51506-28-6
                                53467-00-8
                                             58814-24-7
                                                          74523-85-6.
     93939-75-4 126305-25-7
                              140716-62-7
                                             757955-10-5
     766551-18-2
                                  767332-26-3 768377-85-1
                   767332-25-2
        (surfactant; method for making and developing lithog.
        printing plate)
L24
     ANSWER 4 OF 33
                     CAPLUS
                             COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:
                         2004:782083 CAPLUS
DOCUMENT NUMBER:
                         141:285857
TITLE:
                         Method for processing light-sensitive
                         lithographic printing plate
                         precursors and development solutions
                         therefor
INVENTOR(S):
                         Konuma, Taro; Suzuki, Toshitsugu
PATENT ASSIGNEE(S):
                         Konica Minolta Holdings, Inc., Japan
SOURCE:
                         Jpn. Kokai Tokkyo Koho, 36 pp.
                         CODEN: JKXXAF
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         Japanese
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
```

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2004264649	A2	20040924	JP 2003-55463	200303
PRIO	RITY APPLN. INFO.:			JP 2003-55463	200303

AB The title method includes the steps of: imagewise exposing a printing plate precursor, which has a light-sensitive layer containing monomers with ethylenic unsatd. groups, a photopolymn.

initiator, and a binder on an aluminum support, with 350-600 nm light; and developing the printing plate precursor with an alkali developer solution of 8.5-12.5 pH, wherein the alkali developer solution contains inorg. alkali, a nonionic surfactant (HLB=A, content=MA) of polyoxyalkylene aryl ether structure with  $\geq 15$  HLB and a nonionic surfactant (HLB=B, content=MB) with  $\leq 13.5$  HLB and satisfies the equation:  $13 \leq (AXMA+BXMB) / (METHACRYLATE+MB) \leq 16$ . The method provides printing plates of high printing durability and decreased sludge amount in the development tank.

IT 35545-57-4

(surfactant; alkali developer solns.)

RN 35545-57-4 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -2-naphthalenyl- $\omega$ -hydroxy-(9CI) (CA INDEX NAME)

IC ICM G03F007-32

ICS G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST processing light lithog printing plate precursor development soln surfactant

IT Lithographic plates

(method for processing light-sensitive lithog
 printing plate precursors and development
solns. therefor)

IT Surfactants

(nonionic; method for processing light-sensitive lithog. printing plate precursors and development solns. therefor)

IT 7429-90-5, Aluminum, uses

(support; lithog. printing plate precursors)

IT 9002-92-0, Polyethylene glycol monododecyl ether 9004-78-8,

Polyethylene glycol monophenyl ether 26635-75-6 31017-83-1 31587-78-7 32492-61-8, Ethoxylated bisphenol a **35545-57-4** 37251-67-5, Ethylene oxide-propylene oxide copolymer monodecyl ether (surfactant; alkali developer solns.)

ANSWER 5 OF 33 L24CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:753229 CAPLUS DOCUMENT NUMBER:

141:285794

TITLE: Developing solution for heat-

sensitive lithographic printing plate precursor

INVENTOR(S): Takamiya, Shuichi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 59 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA 	PATENT NO.			KIN:	D -	DATE	<del>-</del>		APPL - <b>-</b>	ICAT	ION :	NO.		DATE -			
EP	EP 1457837			A2 200409			0915	EP 2004-5851					,	200403			
EP	14578	37			А3		2004	1222							-	11	
		AT, PT, PL,	IE,	CH, SI,	DE, LT,	DK, LV,	ES, FI,	FR, RO,	GB, MK,	GR, CY,	IT, AL,	LI, TR,	LU, BG,	NL, CZ,	SE, EE,	MC, HU,	
JP	20.042	-			A2		2004	0930		JP 2	003-	6612	0		_	200303	
US	20041	8537	74		A1		2004	0923		US 2	004-	7983	65			200403	
PRIORIT	Y APPL	N. ]	INFO	. :					,	JP 20	003-0	66120	)	Ī	A 2	.2 .00303 .2	

Disclosed is an alkaline developing solution for development of a AΒ heat-sensitive presensitized plate of pos.-working mode for use in making a lithog. printing plate, that comprises a linear-type alkyleneoxide adduct and a branched-type alkyleneoxide adduct; a method for preparing a lithog. printing plate comprising the steps of light-exposing to IR radiation, a heat-sensitive presensitized plate of pos.-working mode for use in making a lithog.

printing plate, said presensitized plate having an image recording layer which comprises an IR-absorbing dye on a substrate, and developing the light-exposed plate with the above alkaline developing solution. The object of the present invention is to provide an alkaline developing solution and a plate making method which can exhibit a certain performance, even if components of an image recording layer dissolve into the developing solution in course of processing, and make possible that a highly sharp and clear image is formed without damages to the formed image areas.

35545-57-4 69507-72-8

(developing solution for heat-sensitive lithog. printing plate comprising linear and branched-type alkyleneoxide adduct)

RN 35545-57-4 CAPLUS

IT

CN

RN

CN

IC

CC

ST

ΙT

Poly(oxy-1,2-ethanediyl),  $\alpha$ -2-naphthalenyl- $\omega$ -hydroxy-(9CI) (CA INDEX NAME)

69507-72-8 CAPLUS

Poly[oxy(methyl-1,2-ethanediyl)],  $\alpha$ -2-naphthalenyl- $\omega$ -hydroxy- (9CI) (CA INDEX NAME)

ICM G03F007-32

ICS B41C001-10; B41M005-40

74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

developing soln heatsensitive lithog

printing plate precursor presensitized pos

Polyurethanes, properties

(developing solution for heat-sensitive

lithog. printing plate comprising linear and branched-type alkyleneoxide adduct) ITPolyoxyalkylenes, uses (developing solution for heat-sensitive lithog. printing plate comprising linear and branched-type alkyleneoxide adduct) ITLithographic plates (presensitized, pos.-working; developing solution for heat-sensitive lithog. printing plate comprising linear and branched-type alkyleneoxide adduct) ΤT 58931-97-8P, Methacrylic acid-propyl methacrylate copolymer 153991-97-0P, 2,2-Bis(hydroxymethyl)propionic acid-tetraethylene glycol-1,4-butanediol-4,4'-diphenylmethane diisocyanatehexamethylene diisocyanate copolymer 175221-27-9P, Ethyl methacrylate-isobutyl methacrylate-methacrylic acid-copolymer 287118-70-1P, N-(p-Aminosulfonylphenyl)methacrylamide-ethyl methacrylate-acrylonitrile-N, N-dimethylacetamide copolymer 502841-14-7P, 4,4'-Diphenylmethane diisocyanate-hexamethylene. diisocyanate-3,5-dihydroxybenzoic acid-1,6-hexanediol copolymer (developing solution for heat-sensitive lithog. printing plate comprising linear and branched-type alkyleneoxide adduct) ΙT 9002-92-0, Polyethylene glycol monododecyl ether 9003-11-6, Ethylene oxide-propylene oxide copolymer 9003-11-6D, Oxirane-methyl oxirane copolymer, reaction products with amine and ethylene diamine 9004-78-8, Polyethylene glycol monophenyl ether 9064-14-6, Polypropylene glycol monododecyl ether 9082-00-2 25322-68-3, Polyethylene glycol 25322-69-4, Polypropylene glycol 26027-38-3 27014-42-2 28212-40-0, Polypropylene glycol monophenyl ether 31691-23-3 31694-55-0 35545-57-4 36936-60-4 37311-00-5, Ethylene oxide-propylene oxide copolymer monododecyl ether 60831-68-7, Ethylene oxide-propylene oxide copolymer monophenyl ether 63950-87-8 66988-47-4 69507-72-8 70024-53-2 125920-35-6 154278-88-3 301206-99-5 473922-52-0 757188-48-0 757188-56-0 757209-38-4 (developing solution for heat-sensitive lithog. printing plate comprising linear and branched-type alkyleneoxide adduct) L24 ANSWER 6 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN ACCESSION NUMBER: 2004:633144 CAPLUS DOCUMENT NUMBER: 141:181997 TITLE: Positive working thermal imaging assembly used as lithographic printing plate Arias, Andre Luiz; Arias, Luiz Nei; Arias, INVENTOR(S): Marjorie; Provenzano, Mario Italo PATENT ASSIGNEE(S): Brazil

SOURCE:

U.S. Pat. Appl. Publ., 13 pp., Cont.-in-part of

U.S. Pat. Appl. 2003 165,774.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PAT	TENT	NO.			KIN:	D –	DATE			APPI	ICAT	ION	NO.			DATE
	us	2004	- 1520	18		A1		2004	0805		US 2	2003-	7266	23			200312
	BR	2001	0022	18		A		2003	0513		BR 2	2001-	2218				200105
	MÒ	2002	0966	49		A1		2002	1205		WO 2	2002-	BR75				31 200205 29
		W:	CN, GE, LC, NO, TM,	CO, GH, LK, NZ, TN,	CR, GM, LR, OM, TR,	CU, HR, LS, PH, TT,	CZ, HU, LT, PL, TZ,	DE, ID, LU, PT, UA,	DK, IL, LV, RO,	DM, IN, MA, RU, US,	DZ, IS, MD, SD,	EC, JP, MG, SE,	EE, KE, MK, SG,	ES, KG, MN, SI,	FI, KP, MW, SK,	GB KR MX SL	CH, GD, KZ, MZ, TJ,
		RW:	GH, CH, SE,	GM, CY,	KE, DE, BF,	LS, DK,	MW, ES,	MZ, FI,	SD, FR,	SL, GB,	GR,	IE,	ΙT,	LU,	MC,	NL	BE, PT, NE,
		2003	1657	74		A1		2003	0904			2003-					200305 02
PRIOI	RIT	Y APP	LN.	INFO	.:					-	BR 2	2001-	2218				200105 31
											WO 2	2002-	BR75				200205 29
											US 2	2003-	3432	34		A2	200305 02
ie ro		a . <del></del>			= 0		« -·		(1)		BR 2	2001-	1022	18		Ā	200105

AB The invention relates to pos. working thermal imaging assembly comprising: (A) a substrate; and (B) a thermally sensitive imaging element of a composite layer structure comprising: (i) a first layer on the substrate of a polymeric material soluble in aqueous

alkali solution, optionally containing compds. that absorb and convert light to heat and/or a colored dye or pigment; said first layer being converted at its surface by treatment with solns. at elevated temps. that contain an active compound or compds. capable of rendering first polymeric material insol. to aqueous alkali developer at the point of contact; the first layer being oleophilic; (ii) optionally, a first intermediate layer between the substrate and the said first layer with a second polymeric material which is soluble or dispersible in aqueous solution optionally containing compds. that absorb and convert light or radiation to heat and/or a colored dye or pigment coated from a solvent that does not substantially dissolve the first layer; and (iii) optionally, a third or top layer over the converted first layer and composed of a second polymeric material which is soluble or dispersible

in aqueous solution optionally containing compds. that absorb and convert light or radiation to heat and/or a visible colored dye or pigment; the first intermediate layer and the third layer being applied with a solvent that does not substantially dissolve the converted first layer. The assembly is useful as off-set lithog. printing plates, for color proofing films and photoresist. The invention also refers to the process for making such assembly and products formed from it. 35545-57-4, Solsperse 27000

(pos. working thermal imaging assembly used as lithog. printing plate)

RN 35545-57-4 CAPLUS

IT

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -2-naphthalenyl- $\omega$ -hydroxy-(9CI) (CA INDEX NAME)

IC ICM G03F007-038

ICS G03F007-095; G03F007-16; G03F007-14

430273100; 430275100; 430278100; 430302000; 430330000; 430964000 NCL 74-6 (Radiation Chemistry, Photochemistry, and Photographic and CC Other Reprographic Processes) pos working thermal imaging assembly lithog ST printing plate; color proofing pos working film photoresist lithog printing plate IT Aminoplasts (pos. working thermal imaging assembly used as lithog. printing plate) ITPhotoresists (pos. working thermal imaging assembly used as lithog. printing plate or) ΙT Lithographic plates (pos.; pos. working thermal imaging assembly used as lithog. printing plate) ΙT 548-62-9, Crystal violet 569-64-2, Malachite Green 9002-93-1, 9003-08-1, Resimene 735 9004-36-8, CAB 551-0.1 Triton X 100 9004-74-4, Carbowax 2000 11114-17-3, Fluorad FC-430 25086-89-9, Luviskol VA 64 25213-39-2, Butylmethacrylate-styrene copolymer **35545-57-4**, Solsperse 27000 53320-66-4, Monazoline C 75432-22-3, Zonyl N 109265-72-7, Solsperse 20000 115470-64-9, 134127-48-3, ADS 830A 185857-48-1, Bakelite 6564 262358-33-8, Bakelite 744 390773-55-4, HRJ 2606 477795-16-7, Cymel U216-8 477801-28-8, ADS 1064 691397-13-4, Pluronic PE4300 732305-58-7, Epolin 1064 (pos. working thermal imaging assembly used as lithog. printing plate) L24 ANSWER 7 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN ACCESSION NUMBER: 2004:525158 CAPLUS DOCUMENT NUMBER: 141:79348 TITLE: Developer composition for lithographic printing plate INVENTOR(S): Suzuki, Toshitsugu PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan SOURCE: Eur. Pat. Appl., 27 pp. CODEN: EPXXDW DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_\_\_ 20040630 EP 1434102 A1

200312 17

EP 2003-28918

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

JP 2004205619 A2 20040722 JP 2002-371945

200212
24

US 2004170931 A1 20040902 US 2003-735883

200312 15

PRIORITY APPLN. INFO.:

JP 2002-371945

200212

24

AB A developer composition for a lithog. printing plate comprises on an aluminum plate support a photosensitive layer which comprises an ethylenically unsatd. monomer, a photopolymn. initiator and a polymeric binder, wherein the developer composition contains water in an amount of not more than 10% and is substantially free from a silicate. There is also disclosed a developer solution obtained by dissolving the developer composition in water.

IT 69778-08-1

(developer composition for lithog. printing plate containing)

RN 69778-08-1 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -naphthalenyl- $\omega$ -hydroxy-(9CI) (CA INDEX NAME)

$$HO - \begin{bmatrix} CH_2 - CH_2 - O \end{bmatrix} n D1$$

IC ICM G03F007-32

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

ST developer compn lithog printing plate

IT Lithographic plates

(developer composition for lithog, printing plate)

IT 12627-13-3, Silicate

(developer composition for lithog. printing plate) ΙT 125051-32-3 (developer composition for lithog. printing plate containing)

584-08-7, Potassium carbonate 1310-58-3, Potassium hydroxide, uses IT69778-08-1 106392-12-5, Polyoxyethylene polyoxypropylene block copolymer 119329-13-4 152048-40-3, 4,4'-Diphenylmethane diisocyanate-1,6-hexamethylene diisocyanate-polyethylene glycol-2,2-bis(hydroxymethyl)propionic acid copolymer (developer composition for lithog. printing plate containing)

REFERENCE COUNT:

6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 8 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2004:492527 CAPLUS

DOCUMENT NUMBER:

141:44896

TITLE:

Method for treatment of photosensitive

lithographic printing plates and agents for protection of lithographic printing plates

INVENTOR(S):

Suzuki, Toshitsugu

PATENT ASSIGNEE(S):

Konica Minolta Holdings Inc., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 39 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND 	DATE 	APPLICATION NO.	DATE
JP 2004167903	A2	20040617	JP 2002-337843	
PRIORITY APPLN. INFO.:			JP 2002-337843	200211
				200211 21

Exposed and developed photosensitive lithog. AΒ printing plates are treated with an aqueous solution

containing a nonionic surfactant or a polyoxyethylene-containing anionic

surfactant containing saturated alkyl group of 0-25% of the hydrophobic

group. The said printing plate consists of a metal support carrying

a photosensitive layer containing polymerizable ethylenically unsatd. monomers, photopolymn. initiators, and polymeric binders. The aqueous solns. containing the said surfactants are also claimed as agents for protection of lithog.

printing plates. Stop staining, i.e. staining on start after stopping, of printings is prevented.

69778-08-1

IT 69778-08-1

(protective agent; treatment of developed photosensitive lithog. printing plates with surfactants for their protection)

RN 69778-08-1 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -naphthalenyl- $\omega$ -hydroxy-(9CI) (CA INDEX NAME)

$$HO \longrightarrow CH_2 - CH_2 - O \longrightarrow D1$$

IC ICM B41N003-00

ICS G03F007-00; G03F007-40

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 46

ST lithog printing plate protection treatment surfactant; nonionic surfactant treatment lithog printing plate; polyoxyethylene anionic surfactant treatment lithog printing plate

IT Polyurethanes, preparation

(acrylic-polyoxyalkylene-, photosensitive layer; treatment of developed photosensitive lithog.

printing plates with surfactants for their protection)

IT Surfactants

(anionic, polyoxyethylene-containing; treatment of developed photosensitive lithog. printing

plates with surfactants for their protection)

IT Surfactants

(nonionic; treatment of developed photosensitive
lithog. printing plates with surfactants for
their protection)

IT Lithographic plates

03

200210

JP 2002-290968

.....

(photosensitive; treatment of developed photosensitive lithog. printing plates with surfactants for their protection) ΙT Polyoxyalkylenes, uses (surfactants; treatment of developed photosensitive lithog. printing plates with surfactants for their protection) 209973-68-2P, Acrylonitrile-ethyl methacrylate-glycidyl ΙT methacrylate-methacrylic acid-methyl methacrylate copolymer (binder; treatment of developed photosensitive lithog. printing plates with surfactants for their protection) IΤ 702689-29-0P (photosensitive layer; treatment of developed photosensitive lithog. printing plates with surfactants for their protection) 9004-78-8, Poly(oxyethylene) phenyl ether ΙT 9016-45-9. Polyoxyethylene nonylphenyl ether 69778-08-1 (protective agent; treatment of developed photosensitive lithog. printing plates with surfactants for their protection) L24 ANSWER 9 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN ACCESSION NUMBER: 2004:330867 CAPLUS DOCUMENT NUMBER: 140:365692 TITLE: Method and developing liquid for treatment of photosensitive lithographic printing plate material INVENTOR(S): Konuma, Taro PATENT ASSIGNEE(S): Konica Minolta Holdings Inc., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp. CODEN: JKXXAF DOCUMENT TYPE: Patent LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE JP 2004126266 A2 20040422 JP 2002-290968 200210

PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 140:365692

The invention is concerned about a method and a developing liquid for treating a lithog. printing plate comprising an aluminum substrate and a photosensitive layer containing at least ethylenic unsatd. monomers, photopolymn. initiators, and polymeric binders after light exposure. The developing liquid has a pH 8.5-13 and contains at least an inorg. alkali, carboxyl-containing polymers, and compound R1O(R2O)nSO3X (R1 = aryl; R2 = C1-10 alkylene; n = 3-100; X = K, Na, ammonium).

IT **81503-86-8** 

CN

CC

ΙT

(method and developing liquid for treatment of
photosensitive lithog. printing plate
material)

material)

RN 81503-86-8 CAPLUS

Poly(oxy-1,2-ethanediyl),  $\alpha$ -sulfo- $\omega$ -(2-naphthalenyloxy)-, sodium salt (9CI) (CA INDEX NAME)

$$O = \begin{bmatrix} CH_2 - CH_2 - O \end{bmatrix}_n SO_3H$$

#### Na

IC ICM G03F007-32 ICS G03F007-00

74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST developing liq photosensitive lithog printing plate

Lithographic plates

(method and developing liquid for treatment of photosensitive lithog. printing plate material)

IT Polyoxyalkylenes, uses

(method and developing liquid for treatment of photosensitive lithog. printing plate material)

IT 106392-12-5, Plonon 102

(Nissan Plonon 407, 307, 102; method and developing liquid for treatment of photosensitive lithog. printing plate material)

TT 79-10-7D, Acrylic acid, esters, polymers 25549-84-2, Aron A 20U 63519-67-5, Aron A 6330 **81503-86-8** 669063-42-7, Aron A 6712 669063-48-3, Aron A 6610

(method and developing liquid for treatment of

#### photosensitive lithog. printing plate

material)

IT 1310-58-3, Potassium hydroxide, uses

(method and developing liquid for treatment of photosensitive lithog. printing plate material)

L24 ANSWER 10 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2004:200800 CAPLUS

DOCUMENT NUMBER:

140:243630

TITLE:

Method for processing light-sensitive

lithographic printing plate

precursors and developing solutions

therefor

INVENTOR(S):

Suzuki, Toshitsugu; Konuma, Taro

PATENT ASSIGNEE(S):

Konica Minolta Holdings Inc., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 29 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND 	DATE	APPLICATION NO.	DATE
<b>-</b> ЈР 2004077589	A2	20040311	JP 2002-234609	
PRIORITY APPLN. INFO.:			JP 2002-234609	200208 12
			01 2002 234009	200208

The title method includes the steps of: imagewise exposing a lithog. printing plate precursor, which has a light-sensitive resin layer containing ethylenic unsatd. monomers, a photopolymn. initiator, a polymer binder on a metal support; and processing the printing plate precursor with developer, which contains a nonionic surfactant having 0-25 % of hydrophobic groups with saturated alkyl groups and a surfactant with amide groups and has 8.5-12.5 pH. The method decreases the generation of sludge in the development tanks.

IT 35545-57-4

(surfactant in developing solns.)

RN 35545-57-4 CAPLUS

CN Poly(oxy-1,2-ethanediy1),  $\alpha$ -2-naphthalenyl- $\omega$ -hydroxy-

(9CI) (CA INDEX NAME)

IC ICM G03F007-32 ICS G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

processing light lithog printing plate ST developing soln

ΙT Lithographic plates

> (method for processing lithog. printing plate precursors and developing solns. therefor)

137-16-6 18777-32-7 26635-75-6 **35545-57-4** IT

93704-36-0D, derivative 332884-58-9 639506-65-3 668991-75-1 668991-77-3

(surfactant in developing solns.)

ANSWER 11 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN L24

ACCESSION NUMBER:

2004:118453 CAPLUS

DOCUMENT NUMBER:

140:172227

TITLE:

Developing solutions for lithographic printing plate

making with light-sensitive printing

plate precursor

INVENTOR(S):

Konuma, Taro

PATENT ASSIGNEE(S):

Konica Minolta Holdings Inc., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese ·

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004045724	A2	20040212	JP 2002-202672	
				200207 11
PRIORITY APPLN. INFO.:			JP 2002-202672	11
				200207
				11

OTHER SOURCE(S): MARPAT 140:172227

AB The title development solution is an alkali solution and is for a lithog. printing plate precursor, which has a light-sensitive layer made of polymerizable ethylenic unsatd. compds., a photopolymn. initiator, and a polymer binder, wherein compound R1-O-(R2-O)n-SO3- $\cdot$ X+ (R1 = aryl; R2 = C1-10 alkylene; n = 5-100 integer) is added in the alkali solution The solution shows reduced accumulation of sludge in the processing tank.

ΙT 81503-86-8

(invention's sulfonate compound in developing solns.)

81503-86-8 CAPLUS RN

CNPoly(oxy-1,2-ethanediyl),  $\alpha$ -sulfo- $\omega$ -(2-naphthalenyloxy)-, sodium salt (9CI) (CA INDEX NAME)

#### Na

ICICM G03F007-32

ICS G03F007-00; G03F007-004

CC74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

STdeveloping soln lithog printing plate

ΙT Lithographic plates

(developing solns. for lithog.

printing plate making)

ΙT 81503-86-8 82009-26-5

(invention's sulfonate compound in developing solns.)

ANSWER 12 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2004:18077 CAPLUS

DOCUMENT NUMBER:

140:84660

TITLE:

Photosensitive lithographic

printing plates and their manufacture

INVENTOR(S):

Koizumi, Shigeo; Murota, Yasufumi

PATENT ASSIGNEE(S):

Fuji Photo Film Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 50 pp.

SOURCE: CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
 JP 2004004145	A2	20040108	JP 2002-112094		
÷ .					200204 15
PRIORITY APPLN. INFO.:			JP 2002-88627	A	200203

AB The printing plates have photosensitive layers comprising (A) addition-polymerizable compds. having ethylenically unsatd. double bonds, (B) organic linear polymer binders, (C) photopolymn. initiators.

(D) sensitizing dyes having absorption maximum at 350-450 nm, and (E) dispersions of organic pigments, with average particle size  $\leq 0.25$  $\mu m$  and ratio of particles with particle size >0.50  $\mu m$ ≤10 volume%, having absorption maximum at 500-750 nm and no absorption maximum at 390-450 nm. The printing plates are manufactured by

scan-exposing with 390-450-nm laser light and developing with developers (pH 10.0-12.5; elec. conductivity 3-30 mS/cm) containing inorq.

alkalis and nonionic surfactants having polyoxyalkylene ether groups. The printing plates show high sensitivity for short-wavelength semiconductor laser light, good dot reproducibility, and decreased fringe stains around dots.

IT69778-08-1 386214-34-2 386214-35-3

(developers; manufacture of lithog. plates with high sensitivity for short-wavelength semiconductor laser light)

RN 69778-08-1 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -naphthalenyl- $\omega$ -hydroxy-(9CI) (CA INDEX NAME)

RN 386214-34-2 CAPLUS

CN Poly[oxy(methyl-1,2-ethanediyl)],  $\alpha$ -naphthalenyl- $\omega$ -hydroxy- (9CI) (CA INDEX NAME)

$$HO \longrightarrow (C_3H_6) - O \longrightarrow n$$

RN 386214-35-3 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[(1,1-dimethylethyl)naphthalenyl]- $\omega$ -hydroxy- (9CI) (CA INDEX NAME)

IC ICM G03F007-00

ICS G03F007-004; G03F007-028; G03F007-32

- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST lithog printing plate phthalocyanine pigment sensitivity; polyoxyalkylene nonionic surfactant developer lithog plate
- IT 1310-58-3, Potassium hydroxide, uses **69778-08-1** 386214-34-2 386214-35-3

(developers; manufacture of lithog. plates with high sensitivity for short-wavelength semiconductor laser light)

L24 ANSWER 13 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2003:693973 CAPLUS

DOCUMENT NUMBER:

139:221637

TITLE:

Direct platemaking of infrared-sensitive

lithographic printing plate

INVENTOR(S):

Takamiya, Shuichi

PATENT ASSIGNEE (S):

Fuji Photo Film Co., Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 46 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003248300	A2	20030905	JP 2002-49772	200202
PRIORITY APPLN. INFO.:			JP 2002-49772	200202 26
				200202 26

AB A lithog. printing plate having an imaging layer containing an IR-absorbing dye is exposed to IR ray and then developed with an alkali developer solution containing an amphoteric surfactant and a nonionic surfactant. Generation of development sediment is suppressed by using the developer solution, and the obtained printing plate shows no gum-repelling. Sharp and clear images can be formed by using the printing plate.

IT 35545-57-4

(direct platemaking of IR-sensitive lithog.

printing plate by development with alkali developer containing amphoteric and nonionic surfactants)

```
RN
     35545-57-4 CAPLUS
CN
     Poly(oxy-1,2-ethanediyl), \alpha-2-naphthalenyl-\omega-hydroxy-
     (9CI) (CA INDEX NAME)
             0-СН2-СН2-п
IC
     ICM G03F007-00
     ICS G03F007-004; G03F007-32
     74-6 (Radiation Chemistry, Photochemistry, and Photographic and
CC
     Other Reprographic Processes)
     Section cross-reference(s): 46
ST
     direct platemaking IR sensitive lithog
     printing plate; amphoteric nonionic surfactant alkali
     developer IR platemaking lithog; development sediment suppression IR
     platemaking lithog
ΙT
     Surfactants
        (amphoteric; direct platemaking of IR-sensitive
        lithog. printing plate by development with
        alkali developer containing amphoteric and nonionic surfactants)
ΙT
     Lithographic plates
        (direct platemaking of IR-sensitive lithog.
        printing plate by development with alkali developer
        containing amphoteric and nonionic surfactants)
ΙT
     Polyoxyalkylenes, uses
        (direct platemaking of IR-sensitive lithog.
        printing plate by development with alkali developer
        containing amphoteric and nonionic surfactants)
ΙT
     Polyurethanes, processes
        (imaging layer containing; direct platemaking of IR-sensitive
        lithog. printing plate by development with
        alkali developer containing amphoteric and nonionic surfactants)
ΙΤ
     Surfactants
        (nonionic; direct platemaking of IR-sensitive
        lithog. printing plate by development with
        alkali developer containing amphoteric and nonionic surfactants)
ΙT
     683-10-3
               820-66-6
                           6288-39-7
                                     9002-92-0
                                                   9003-11-6
     10471-50-8
                  25322-68-3
                               26401-47-8
                                            27014-42-2 35545-57-4
     36936-60-4
                  50586-59-9
                               85668-56-0
                                            110134-52-6 131836-83-4
     146186-08-5 154278-88-3
                                 203059-63-6
                                               374777-93-2 590366-97-5
        (direct platemaking of IR-sensitive lithog.
```

printing plate by development with alkali developer

containing amphoteric and nonionic surfactants)

124996-93-6P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamideethyl methacrylate copolymer 175221-27-9P, Ethyl
methacrylate-isobutyl methacrylate-methacrylic acid copolymer
502841-14-7P

(imaging layer containing; direct platemaking of IR-sensitive lithog. printing plate by development with alkali developer containing amphoteric and nonionic surfactants)

L24 ANSWER 14 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2003:240182 CAPLUS

DOCUMENT NUMBER:

138:262730

TITLE:

Alkaline developer for infrared sensitive lithographic material and manufacture of

printing plate

INVENTOR (S):

Takamiya, Shuichi

PATENT ASSIGNEE(S):

Fuji Photo Film Co., Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 40 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JP 2003091078	A2	20030328	JP 2002-170523	
PRIORITY APPLN. INFO.:			JP·2001-212375 A	200206 11
				200107 12

AB The developer contains a nonionic surfactant, an alkylene oxide addition compound, and salts of a metal selected from 2 to 15 group (Group IIA to VA) in a periodic table. The printing plate is manufactured

by developing the material having an image forming layer containing IR absorber with the developer after IR exposure. The developer prevents a residual layer in a non-image area, providing an image with high sharpness.

RN 35545-57-4 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -2-naphthalenyl- $\omega$ -hydroxy-(9CI) (CA INDEX NAME)

IC ICM G03F007-32

ICS G03F007-00; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 71-43-2, Benzene, uses 139-12-8, Aluminum acetate 142-71-2. Copper acetate 142-72-3, Magnesium acetate 299-28-5, Calcium 373-02-4, Nickel acetate 543-80-6, Barium acetate 543-81-7, Beryllium acetate 543-94-2, Strontium acetate 544-17-2, Calcium formate 557-34-6, Zinc acetate 591-64-0, Levulinic acid calcium salt 638-39-1, Tin acetate 996-23-6 2140-52-5, Iron acetate 2180-18-9, Manganese acetate 3804-23-7, Scandium acetate 4075-81-4, Calcium propionate 5931-89-5, Cobalt 9002-92-0, Polyethylene glycol monododecyl ether 9003-11-6, Ethylene glycol-propylene glycol copolymer 9005-00-9, Polyethylene glycol monooctadecyl ether 10043-52-4, Calcium chloride, uses 10124-37-5, Calcium nitrate 15808-04-5, Tartaric acid calcium salt 17593-70-3, Chromium acetate 25322-68-3, Polyethylene glycol 27014-42-2, Polyethylene glycol ethylenediamine ether 29094-03-9, Bismuth acetate 35545-57-4, Polyethylene glycol mono(2-naphthyl) ether 36936-60-4, Polyethylene glycol triethanolamine ether 38497-57-3, Titanium acetate 50586-59-9 56357-79-0 63442-13-7 63465-09-8, Vanadium acetate 110134-52-6 154278-88-3 (developer containing nonionic surfactant and metal salt for IRsensitive lithog. plates)

L24 ANSWER 15 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2003:113125 CAPLUS

DOCUMENT NUMBER:

138:161108

TITLE:

Method for lithographic plate making using printing plate precursors with specific intermediate layer and specific developing

solution

INVENTOR(S):

Kondo, Shunichi

PATENT ASSIGNEE(S):

Fuji Photo Film Co., Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 25 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JP 2003043693	7. (2)	20020212	TD 0001 025010	
0F 2003043693	A2	20030213	JP 2001-235810	200108
PRIORITY APPLN. INFO.:			JP 2001-235810	03
				200108 03

The title method uses a lithog. printing plate precursor having an intermediate layer and a light-sensitive layer made of photopolymerizable materials and a developing solution, wherein the intermediate layer contains a polymer having phosphoric acid groups in the side chain and wherein the developing solution contains an inorg. alkali salt and a nonionic surfactant having polyoxyalkylene ether and has 11.0-12.7 pH. The method provides the printing plate showing the good storageability.

IT 69778-08-1

(developing solution; method for lithog. plate making using printing plate precursors)

RN 69778-08-1 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -naphthalenyl- $\omega$ -hydroxy-(9CI) (CA INDEX NAME)

$$HO = CH_2 - CH_2 - O = D1$$

IC ICM G03F007-11

ICS G03F007-00; G03F007-32

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35

ST lithog plate precursor intermediate layer developing soln

IT 1310-58-3, Potassium hydroxide, uses 1312-76-1, Potassium silicate 9004-78-8, Polyoxyethylene phenyl ether 69778-08-1 (developing solution; method for lithog. plate making using printing plate precursors)

L24 ANSWER 16 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2002:709212 CAPLUS

DOCUMENT NUMBER:

137:255371

TITLE:

Method for making lithographic printing plates using developing

solution containing specific compound

INVENTOR(S):

Murota, Yasufumi; Nagase, Hiroyuki; Kondo,

Shunichi

PATENT ASSIGNEE(S):

SOURCE:

Fuji Photo Film Co., Ltd., Japan

Jpn. Kokai Tokkyo Koho, 41 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

LANGUAGE:

Patent Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002268204	A2	20020918	JP 2001-62075	
				200103 06
PRIORITY APPLN. INFO.:			JP 2001-62075	00
•				200103
,	,			06

- AB The title method includes the steps of: imagewise exposing a lithog. printing precursor containing a sensitizing dye with a laser beam; and developing the image on the plate with a developing solution containing an inorg. alkali compound and compound A-W (A = hydrophobic organic group of ≥1.5 log(A-H); W = ionic hydrophilic organic group of <1.0 log(W-H)). The method generates little soiling on background area of the printing plate.
- IT 69778-08-1 386214-34-2 386214-35-3 386214-36-4 386214-38-6

(developing solution for making lithog.

printing plates)

RN 69778-08-1 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -naphthalenyl- $\omega$ -hydroxy-(9CI) (CA INDEX NAME)

$$HO - CH_2 - CH_2 - O - In$$

RN 386214-34-2 CAPLUS

CN Poly[oxy(methyl-1,2-ethanediyl)],  $\alpha$ -naphthalenyl- $\omega$ -hydroxy- (9CI) (CA INDEX NAME)

HO 
$$(C_3H_6)$$
  $-O$   $n$ 

RN 386214-35-3 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[(1,1-dimethylethyl)naphthalenyl]- $\omega$ -hydroxy- (9CI) (CA INDEX NAME)

$$HO = \begin{bmatrix} CH_2 - CH_2 - O \end{bmatrix}_n D1$$

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[(octyloxy)naphthalenyl]- $\omega$ -hydroxy- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{HO} & \hline & \text{CH}_2 - \text{CH}_2 - \text{O} \\ \hline & n \\ \end{array}$$

$$D1 - O - (CH_2)_7 - Me$$

- RN 386214-38-6 CAPLUS
- CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[[(hexylamino)carbonyl]naphthaleny l]- $\omega$ -hydroxy- (9CI) (CA INDEX NAME)

$$HO - CH_2 - CH_2 - O - D1$$

- IC ICM G03F007-00
  - ICS B41C001-10; G03F007-004; G03F007-32
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST lithog printing plate developing soln
- IT Lithographic plates

(method for making lithog. printing plates

using developing solution containing specific compound)

IT 26403-74-7 **69778-08-1 386214-34-2** 

## 386214-35-3 386214-36-4 386214-38-6

386214-40-0

(developing solution for making lithog. printing plates)

L24 ANSWER 17 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2002:568416 CAPLUS

DOCUMENT NUMBER:

137:132155

TITLE:

Method of making lithographic

printing plate

INVENTOR(S):

Shibuya, Akinori; Kunita, Kazuto Fuji Photo Film Co., Ltd., Japan

PATENT ASSIGNEE(S): SOURCE:

Jpn. Kokai Tokkyo Koho, 86 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JP 2002214782	A2	20020731	JP 2001-14521	
				200101 23
PRIORITY APPLN. INFO.:			JP 2001-14521	
				200101 23

AB The invention relates to a method of making a lithog. printing plate which has high sensitivity and development stability. The lithog. printing plate containing a photopolymerizable composition and a photopolymn. initiator having ≥4 aromatic rings in a photosensitive layer is developed by a **solution** having pH≤13.0 after an exposure step. A laser with 300-450 nm or 800-1,200 nm is used for the exposure step.

126305-25-7 ΙT

> (developer for development of lithog. printing plate exposed by 300-450- or 800-1200-nm light)

126305-25-7 CAPLUS RN

Poly(oxy-1,2-ethanediyl),  $\alpha$ -sulfo- $\omega$ -(naphthalenyloxy)-, CNsodium salt (9CI) (CA INDEX NAME)

Na

IC ICM G03F007-029

ICS G03F007-00; G03F007-031; G03F007-32; C08F002-50

CC74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

lithog printing plate development developer pH ST

ΙT Lithographic plates

> (developer for development of lithog. printing plate exposed by 300-450- or 800-1200-nm light)

ΙT 57-10-3, Hexadecanoic acid, uses 64-02-8, Tetrasodium ethylenediaminetetraacetate 77-92-9, Citric acid, uses 98 - 73 - 7141-43-5, Monoethanolamine, uses 1310-58-3, Potassium hydroxide, uses 1462-54-0 9010-92-8, Methacrylic acid-styrene copolymer 28572-98-7, Ethyl methacrylate-methacrylic acid copolymer 36511-65-6 62029-50-9 65697-21-4, Benzyl methacrylatemethacrylic acid copolymer 90216-38-9, Allyl methacrylatemethacrylic acid copolymer 118234-40-5 126305-25-7 421548-66-5 443919-34-4 443919-35-5 (developer for development of lithog. printing plate exposed by 300-450- or 800-1200-nm light)

ANSWER 18 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2002:482874 CAPLUS

DOCUMENT NUMBER:

137:54672

TITLE:

SOURCE:

Method for making lithographic

INVENTOR(S):

printing plates

PATENT ASSIGNEE(S):

Okamoto, Yasuo; Kondo, Shunichi Fuji Photo Film Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JP 2002182401	A2	20020626	JP 2000-380512	000010
PRIORITY APPLN. INFO.:			JP 2000-380512	200012 14
				200012 14

AB The title method includes the steps of: imagewise exposing a light-sensitive lithog. plate precursor, which has an intermediate layer containing a compound with a sulfonic acid or an sulfonium salt group and a light-sensitive layer containing ethylenic unsatd. monomers for addnl. photopolymn., photopolymn. initiator, and a polymer binder on an aluminum support; and developing the image on the lithog. plate precursor using a developing solution, which contains an inorg. alkaline agent and a nonionic surfactant having

polyoxyalkylene ether groups and has 10.5-12.7 pH and 3-30 mS/cm conductivity. The method uses environmentally friendly and safe alkali development solution and provides the good lithog. plate characteristics.

IT 69778-08-1

(alkali developing solution)

RN 69778-08-1 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -naphthalenyl- $\omega$ -hydroxy-(9CI) (CA INDEX NAME)

$$HO - CH_2 - CH_2 - O - D1$$

IC ICM G03F007-32

ICS G03F007-00; G03F007-027; G03F007-11; B32B015-08

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST safety lithog printing plate developer

ΙT Light-sensitive materials Lithographic plates (method for making lithog. printing plates) 1310-58-3, Potassium hydroxide, uses 9004-78-8, Polyoxyethylene ΙT phenyl ether 35138-81-9, Polyoxyethylene methylphenyl ether 69778-08-1 (alkali developing solution) 51821-72-8P, Methyl methacrylate-isobutyl methacrylate-methacrylic ΙT acid copolymer 90216-38-9P, Allyl methacrylate/methacrylic acid copolymer (lithog. printing plate precursor) ΙT 4986-89-4 125051-32-3 227098-90-0 (lithog. printing plate precursor) L24 ANSWER 19 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN ACCESSION NUMBER: 2002:349214 CAPLUS DOCUMENT NUMBER: 136:361831 TITLE: Photosensitive lithographic printing plate INVENTOR(S): Oshima, Yasuhito PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan SOURCE: Eur. Pat. Appl., 49 pp. CODEN: EPXXDW DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY	ACC.	NUM.	COUNT:	3
PATENT	INFO	RMATI	ON:	

	PATENT NO.	KIND	DATE 	APPLICATION NO.	DATE
	EP 1204000	A1	20020508	EP 2001-125486	200111
			, FI, RO, MK	, GR, IT, LI, LU, NL, , CY, AL, TR JP 2000-337688	06 SE, MC,
	CN 1353340	A	20020612	CN 2001-134562	200011 06
PRIOF	RITY APPLN. INFO.:			JP 2000-337688	200111 06 A
					200011 06

A photosensitive lithog. printing plate is ĀB described which is useful for direct-laser write applications and

provides durable prints under high productivity conditions. The plate contains a photosensitive layer containing a poly(vinyl alc.) resin binder modified with an acetal skeleton comprising an aliphatic cyclic structure. The photosensitive also contains: a photopolymn. initiator, a heat polymerization initiator, an addition polymerizable compound,

a sensitizer dye, a co-sensitizer dye, a color pigment, a fluorine-based surfactant, an IR absorber.

IT 126305-25-7

(developer composition; lithog. printing plate for direct-write with photosensitive layer containing poly(vinyl alc.) binder modified with acetal skeleton having aliphatic cyclic structure)

RN 126305-25-7 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -sulfo- $\omega$ -(naphthalenyloxy)-, sodium salt (9CI) (CA INDEX NAME)

$$HO_3S$$
  $O-CH_2-CH_2$   $O-D1$ 

Na

IC ICM G03F007-033

ICS B41C001-10

- CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes).
- ST photosensitive lithog printing plate acetal modified polyvinyl alc binder; aliph cyclic structure modified polyvinyl alc binder printing plate
- IT Lithographic plates

(neg.-working presensitized; lithog. printing plate for direct-write with photosensitive layer containing poly(vinyl alc.) binder modified with acetal skeleton having aliphatic cyclic structure)

IT Polyurethanes, uses

(photosensitive coating binder mixture; lithog. printing plate for direct-write with photosensitive layer

containing poly(vinyl alc.) binder modified with acetal skeleton having aliphatic cyclic structure) ΙT 102-71-6, Triethanolamine, uses 141-43-5, Monoethanolamine, uses 298-14-6 1312-76-1, Potassium silicate 1321-69-3 5968-11-6, Sodium carbonate monohydrate 7757-83-7, Sodium sulfite 25417-20-3, Sodium dibutylnaphthalene sulfonate 25638-17-9 28348-64-3, Sodium isopropylnaphthalene sulfonate 421557-82-6 126305-25-7 (developer composition; lithog. printing plate for direct-write with photosensitive layer containing poly(vinyl alc.) binder modified with acetal skeleton having aliphatic cyclic structure) ΙT 134127-48-3 (photosensitive coating IR absorber; lithog. printing plate for direct-write with photosensitive layer containing poly(vinyl alc.) binder modified with acetal skeleton having aliphatic cyclic structure) IT4986-89-4, NK ester A-TMMT 29570-58-9, NK ester A-9530 139385-71-0, US 101H (photosensitive coating addition polymerizable compound; lithog. printing plate for direct-write with photosensitive layer containing poly(vinyl alc.) binder modified with acetal skeleton having aliphatic cyclic structure) ΙT 90216-38-9, Allyl methacrylate-methacrylic acid copolymer 141634-00-6, Methyl methacrylate-acrylonitrile-N-[(4sulfamoyl)phenyl]methacrylamide copolymer 293329-29-0, MDI-HMDI-polypropylene glycol-2,2-bis(hydroxymethyl)propionic acid copolymer (photosensitive coating binder mixture; lithog. printing plate for direct-write with photosensitive layer containing poly(vinyl alc.) binder modified with acetal skeleton having aliphatic cyclic structure) ΙT 85-42-7D, 1,2-Cyclohexanedicarboxylic anhydride, reaction products with poly(vinyl alc.) and cyclohexanecarboxy aldehyde 2043-61-0D, Cyclohexanecarboxaldehyde, reaction product with poly(vinyl alc.) and cyclohexanedicarboxylic anhydride 9002-89-5D, Poly(vinyl alcohol), saponified, reaction product with cyclohexanecarboxy aldehyde and cyclohexanedicarboxylic anhydride (photosensitive coating binder; lithog. printing plate for direct-write with photosensitive layer containing poly(vinyl alc.) binder modified with acetal skeleton having aliphatic cyclic structure) 293329-35-8 ΙT 120307-06-4 (photosensitive coating co-initiator; lithog. printing plate for direct-write with photosensitive layer

containing poly(vinyl alc.) binder modified with acetal skeleton

having aliphatic cyclic structure) ΙT 120457-86-5 (photosensitive coating heat polymerization inhibitor; lithog. printing plate for direct-write with photosensitive layer containing poly(vinyl alc.) binder modified with acetal skeleton having aliphatic cyclic structure) ΙΤ 13891-29-7 220476-51-7 262612-33-9 (photosensitive coating heat polymerization initiator; lithog. printing plate for direct-write with photosensitive layer containing poly(vinyl alc.) binder modified with acetal skeleton having aliphatic cyclic structure) ΙT 125051-32-3 125407-19-4 (photosensitive coating photopolymn. initiator; lithog. printing plate for direct-write with photosensitive layer containing poly(vinyl alc.) binder modified with acetal skeleton having aliphatic cyclic structure) ΙT 118234-41-6 421548-66-5 (photosensitive coating sensitizer dye; lithog. printing plate for direct-write with photosensitive layer containing poly(vinyl alc.) binder modified with acetal skeleton having aliphatic cyclic structure) IT85568-56-5, Megafac F-177 335612-65-2, Victoria pure blue naphthalenesulfonate (photosensitive coating; lithog. printing plate for direct-write with photosensitive layer containing poly(vinyl alc.) binder modified with acetal skeleton having aliphatic cyclic structure) ΙT 9002-89-5, Poly(vinyl alcohol) (protective film; lithog. printing plate for direct-write with photosensitive layer containing poly(vinyl alc.) binder modified with acetal skeleton having aliphatic cyclic structure) 6834-92-0 ΙT (substrate hydrophilic treatment; lithog. printing plate for direct-write with photosensitive layer containing poly(vinyl alc.) binder modified with acetal skeleton having aliphatic cyclic structure) ΙΤ 86468-54-4, Ethyl methacrylate-sodium 2-acrylamido-2-methyl-1propanesulfonate copolymer 141087-50-5, 3-Methacryloxypropyl trimethoxysilane-Tetraethoxysilane copolymer 142938-52-1 (substrate interlayer sol composition; lithog. printing plate for direct-write with photosensitive layer containing poly(vinyl alc.) binder modified with acetal skeleton having aliphatic cyclic structure) ΙT 67-56-1, Methanol, uses 107-21-1, Ethylene glycol, uses (substrate interlayer sol composition; lithog. printing plate for direct-write with photosensitive layer containing poly(vinyl alc.) binder modified with acetal skeleton

DATE

having aliphatic cyclic structure)

IT 7429-90-5, Aluminum, uses

(substrate; lithog. printing plate for

direct-write with photosensitive layer containing poly(vinyl alc.) binder modified with acetal skeleton having aliphatic cyclic

structure)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR

THIS RECORD. ALL CITATIONS AVAILABLE IN

APPLICATION NO.

THE RE FORMAT

L24 ANSWER 20 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2002:47635 CAPLUS

DOCUMENT NUMBER:

136:93539

TITLE:

Developing solution and fabricating

method for photosensitive
lithographic printing plate

INVENTOR(S):

Tsuchiya, Mitsumasa; Nagase, Hiroyuki; Kondo,

Shunichi; Kunita, Kazuto

PATENT ASSIGNEE(S):

Fuji Photo Film Co., Ltd., Japan

SOURCE:

Eur. Pat. Appl., 63 pp.

DATE

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

KIND

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

										<b>-</b> -				
	EP	1172	- 699			A1	2002	0116	EP	2001-	11579	8		200107
		R:					DK, ES, LV, FI,		GB, GF	R, IT,	LI,	LU, 1	NL, SI	11 E, MC,
	JР	2002	0910	16		A2	2002	0327	JP	2000-	27681	1		
														200009 12
	JΡ	2002	2026	16		A2	2002	0719	JP	2001-	62270			•
					·									200103 06
	US	2002	0924	36		A1	2002	0718	US	2001-	90167	6		
														200107 11
	US	6686	126			В2	2004	02-03						
	US	2004	0967	77		A1	2004	0520	US	2003-	70611	2		
														200311
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JP 2000-276811 A 200009 12

JP 2000-334851 A 200011 01

US 2001-901676 A3 200107 11

AB A plate-making method of a lithog. printing plate is disclosed, which comprises the steps of exposing a photosensitive lithog. printing plate with the acid value of it photosensitive layer being 1.0 meq/g or less with a laser beam, and then developing it with a solution having a pH value of 13.0 or less at a developing speed in the unexposed domain of 0.05 μm/s or more and at an osmotic speed of the developing solution in the exposed domain of 0.1 μm/s or less. The developing solution is a non-silicate-based solution and contains an inorg. alkali agent and a nonionic compound represented by formula A-W (A is a hydrophobic organic group; and W is a hydrophilic group).

69778-08-1 386214-34-2 386214-35-3 386214-36-4 386214-37-5 386214-38-6 386214-41-1

(developing solution for photosensitive lithog. printing plate containing)

RN 69778-08-1 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -naphthalenyl- $\omega$ -hydroxy-(9CI) (CA INDEX NAME)

RN 386214-34-2 CAPLUS

CN

Poly[oxy(methyl-1,2-ethanediyl)],  $\alpha$ -naphthalenyl- $\omega$ -hydroxy- (9CI) (CA INDEX NAME)

$$HO - (C_3H_6) - O - D_1$$

RN 386214-35-3 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[(1,1-dimethylethyl)naphthalenyl]- $\omega$ -hydroxy- (9CI) (CA INDEX NAME)

D1-Bu-t

$$HO = CH_2 - CH_2 - O = D1$$

RN 386214-36-4 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[(octyloxy)naphthalenyl]- $\omega$ -hydroxy- (9CI) (CA INDEX NAME) :

$$HO = \begin{bmatrix} CH_2 - CH_2 - O \end{bmatrix}_n D1$$

RN 386214-37-5 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[(dimethylamino)naphthalenyl]- $\omega$ -hydroxy- (9CI) (CA INDEX NAME)

HO 
$$CH_2-CH_2-O$$
  $n$ 

RN 386214-38-6 CAPLUS

CN Poʻly(oxy-1,2-ethanediyl),  $\alpha$ -[[(hexylamino)carbonyl]naphthaleny 1]- $\omega$ -hydroxy- (9CI) (CA INDEX NAME)

1

$$HO - CH_2 - CH_2 - O - In$$

RN 386214-41-1 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha,\alpha'$ naphthalenediylbis[ $\omega$ -hydroxy- (9CI) (CA INDEX NAME)

$$2 \left[ HO - CH_2 - CH_2 - O - In \right]$$

IC ICM G03F007-32

ICS G03F007-032; G03F007-033; G03F007-035

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

ST lithog printing plate developing soln photosensitive material photoresist photopolymn

IT Light-sensitive materials

Lithographic plates

Photoresists

(developing solution and fabricating method for photosensitive lithog. printing plate)

IT Polymerization

(photopolymn.; developing solution and fabricating method

for photosensitive lithog. printing

```
plate)
     149-30-4, 2(3H)-Benzothiazolethione 115043-23-7
ΤТ
                                                         178206-71-8
        (additive in photosensitive lithog.
       printing plate)
ΙT
     102-71-6, Triethanolamine, uses 298-14-6, Potassium bicarbonate
     497-19-8, Sodium carbonate, uses 584-08-7, Potassium carbonate
     1310-58-3, Potassium hydroxide, uses 1310-73-2, Sodium hydroxide,
    uses
        (alkali agent in developing solution for
       photosensitive lithog. printing
        plate)
     1571-33-1, Phenylphosphonic acid
ΙT
        (aluminum substrate for photosensitive lithog
        . printing plate anodized by)
ΙT
     9004-78-8, Polyethylene glycol phenyl ether 26403-74-7
                  37281-57-5 69778-08-1
     26468-79-1
                                         99401-00-0
     386214-34-2 386214-35-3 386214-36-4
     386214-37-5 386214-38-6
                               386214-39-7
     386214-40-0 386214-41-1
        (developing solution for photosensitive
        lithog. printing plate containing)
ΙT
     118234-41-6
                  141797-15-1
                                 293329-34-7
                                               385843-65-2
        (photopolymn. initiator in photosensitive
        lithog. printing plate)
ΙT
     182005-17-0P 385843-60-7P
                                   385843-61-8P
                                                  385843-62-9P
     385843-64-1P
                    385843-67-4P
        (photosensitive material in lithog.
       printing plate)
     113506-31-3
                  385843-66-3
IT
        (photosensitive material in lithog.
       printing plate)
     6143-80-2
                24504-22-1
ΙT
                              125051-32-3
                                            386213-34-9
        (sensitizer in photosensitive lithog
        . printing plate)
ΙΤ
    124-38-9, Dry ice, uses
        (solid; alkali agent in developing solution for
       photosensitive lithog. printing
       plate)
ΙT
     7429-90-5, Aluminum, uses
        (substrate for photosensitive lithog.
       printing plate)
REFERENCE COUNT:
                         18
                               THERE ARE 18 CITED REFERENCES AVAILABLE
                               FOR THIS RECORD, ALL CITATIONS AVAILABLE
                               IN THE RE FORMAT
```

L24 ANSWER 21 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

2000:181209 CAPLUS

ACCESSION NUMBER:

DOCUMENT NUMBER:

132:229535

TITLE:

Manufacture of lithographic

printing plate

INVENTOR(S):

Nagase, Hiroyuki

PATENT ASSIGNEE(S): SOURCE:

Fuji Photo Film Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JP 2000081711	A2	20000321	JP 1998-251521	
				199809 04
PRIORITY APPLN. INFO.:			JP 1998-251521	199809 04

AB The plate is manufactured by the following steps: (1) imagewise laser exposing a photosensitive lithog. material, comprising a hydrophilized aluminum plate having thereon a photopolymerizable layer containing (a) a compound with addition polymerizable ethylenically

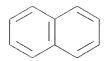
double bond, (b) photopolymn. initiators activated by light at wavelength ≥450 nm, and (c) a polymer having crosslinking group in the side chain; (2) developing with alkaline aqueous soln . with pH ≤12 containing an anionic surfactant. It shows improved antistain property and printing durability, preventing fog resulting from scattered light.

IT 209794-24-1

(developer containing anionic surfactant for presensitized lithog. plate)

RN 209794-24-1 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -sulfo- $\omega$ -(naphthalenyloxy)-(9CI) (CA INDEX NAME)



ICM G03F007-32 IC

ICS G03F007-00; G03F007-029

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

ΙT 64-02-8 25638-17-9 209794-24-1

> (developer containing anionic surfactant for presensitized lithog. plate)

118234-41-6 IT

> (sensitizing dye; presensitized lithog. plate containing ethylenic compound, photopolymn. initiator, and polymer with crosslinkable group)

ANSWER 22 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1997:262679 CAPLUS

DOCUMENT NUMBER:

126:323325

TITLE:

Imaging element with flexible support and method

for making lithographic

printing plate

INVENTOR(S):

Stevens, Marc; Van Hunsel, Johan; Vaes, Jos

PATENT ASSIGNEE(S):

Agfa-Gevaert, N.V., Belg.

SOURCE:

U.S., 7 pp., Cont.-in-part of U.S. Ser. No.

453,832, abandoned.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

2

PATENT INFORMATION:

PATENT NO.	KIŅD	DATE	APPLICATION NO.	DATE
				_
US 5618651	A	19970408	US 1996-593452	199601
				29

PRIORITY APPLN. INFO.:

EP 1994-202380

Α

199408 22

US 1995-453832

B2 199505

30

There is provided an imaging element having a flexible support and comprising on the support a photosensitive layer comprising a silver halide emulsion and an image-receiving layer comprising phys. development nuclei, the layers being in water permeable contact with each other, characterized in that the flexible support is a polyester film having a thickness between 0.15 and 0.35 mm and consisting of polyethylene 2,6-naphthalenedicarboxylate. There is also provided a method for making a lithog. printing plate comprising the steps of imagewise exposing an imaging element as defined above and subsequently developing the thus obtained imaging element by an alkaline

processing liquid in the presence of a developing agent(s) and a silver halide solvent(s).

24968-11-4, Polyethylene 2,6-naphthalenedicarboxylate 25230-87-9, Polyethylene 2,6-naphthalenedicarboxylate (lithog. plate manufacture using diffusion-transfer photog.

materials

with flexible supports containing)

RN 24968-11-4 CAPLUS

CN Poly(oxy-1,2-ethanediyloxycarbonyl-2,6-naphthalenediylcarbonyl) (9CI) (CA INDEX NAME)

RN 25230-87-9 CAPLUS

CN 2,6-Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CRN 1141-38-4 CMF ' C12 H8 O4

```
HO<sub>2</sub>C CO<sub>2</sub>H
```

CM 2

CRN 107-21-1 CMF C2 H6 O2

HO-CH2-CH2-OH

IC ICM G03F007-07

ICS G03C001-795; G03C008-06; G03C008-52

NCL 430204000

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

24968-11-4, Polyethylene 2,6-naphthalenedicarboxylate 25230-87-9, Polyethylene 2,6-naphthalenedicarboxylate

(lithog. plate manufacture using diffusion-transfer photog.

materials

with flexible supports containing)

L24 ANSWER 23 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1994:446534 CAPLUS

DOCUMENT NUMBER:

121:46534

TITLE:

Electrophotographic plate for

electrophotographic lithographic plates

INVENTOR(S):

Kato, Eiichi; Kasai, Seishi

PATENT ASSIGNEE (S):

Fuji Photo Film Co., Ltd., Japan

SOURCE:

PCT Int. Appl., 213 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

1

PATENT INFORMATION:

PATENT NO. KIND DATE AP

APPLICATION NO.

DATE

\_\_\_\_\_

\_\_\_\_

							•		
WO	9215048			A1	19920903	WO	1992-JP188		1992 <sup>0</sup> 2
JP	W: US RW: AT 0426856	, BE,	CH,	DE, A2	DK, ES, FR, 19920924	GB, GF	R, IT, LU, MC,	NL, S	SE .
									199102 22
JP	0429126	5		A2	19921015	JP	1991-78175		199103 19
JP	0430446	2		A2	19921027	JP	1991-94886		199104
JP	0435545	7		A2	19921209	JP	1991-156246		02 199105
EP	535236			A1	19930407	EP	1992-905099		31
מת	535236			D 1	10061010				199202 21
	R: DE			ВІ	19961218		•		
	5342716			A	19940830	US	1992-946320		199210
PRIORITY	APPLN.	INFO.	.:			JP	1991-78711	A	22 199102 22
		* *				JP	1991-78175	А	199103 19
						ĴР	1991-94886	A	199104 02
						JP	1991-156246	A	199105 31
	,					WO	1992-JP188	W	199202 21

AB The title electrophotog. plate utilizing a photoconductor layer containing photoconductive ZnO, a spectral sensitizer dye, and

a binder resin, the binder resin contains ≥1 resins (A) (weight average mol. weight 1 + 103-2 + 104) containing polymer component [CHala2(CO2R3)] [a1, a2 = H, halo, CN, hydrocarbon moiety; R3 = hydrocarbon moiety] ≥ 30% and a polymer component containing ≥1 polar groups selected from PO3H2, SO3H, CO2H,P(O)(OH)R1 (R1 = hydrocarbon or oxyhydrocarbon moiety), and a cyclic acid anhydride moiety 0.5-15%. In addition, the photoconductor layer contains nonag. medium dispersed resin fine particles (L) having particle size less than that of the maximum diameter of the photoconductive ZnO particles utilized above. L is obtained by copolymg. a monofunctional monomer possessing ≥1 functional groups capable of decomposing to form CO2H with another monofunctional monomer(s) in the precursor of a nonaq. solvent-soluble dispersion-stabilizing resin with structure repeating units containing F- and (or) Si-containing substituents. The electrophotog. plate gives lithog. printing plates giving superior printed copies even under severe ambient conditions and having good durability.

IT 135740-39-5P 146817-58-5P

(preparation of, as binder resin)

135740-39-5 CAPLUS

CN Pentanoic acid, 5-[(2-methyl-1-oxo-2-propenyl)oxy]-, polymer with 2-naphthalenyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

RN

CRN 73903-37-4 CMF C9 H14 O4

CM 2

CRN 10475-46-4 CMF C14 H12 O2

RN 146817-58-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-naphthalenyl ester, polymer with 2-(phosphonooxy)ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 32120-16-4 CMF C5 H9 O6 P

CM 2

CRN 19102-44-4 CMF C14 H12 O2

IC ICM G03G005-05

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35

80-62-6DP, Methylmethacrylate, carboxylation product 19102-44-4DP, ΙT 1-Naphthylmethacrylate, carboxy-terminated 30475-53-7P 65697-22-5P, Acrylic acid-benzyl methacrylate 65697-21-4P 126969-78-6P 127909-38-0P 128338-04-5P copolymer 130952-79-3P 131808-63-4P 128338-05-6P 130094-33-6P 135740-18-0P 135740-30-6P 135740-31-7P 135740-32-8P 135740-35-1P 135740-37-3P **135740-39-5P** 135740-33-9P 135740-44-2P 135740-46-4P 135740-47-5P 135740-43-1P 135770-63-7P 135820-62-1P 138059-19-5P 138059-20-8P

138059-23-1P 138059-26-4P 138059-27-5P 138059-28-6P 138059-30-0P 138059-31-1P 138059-33-3P 138059-35-5P

138059-36-6P 139357-81-6P 139645-92-4P 139989-86-9P

145807-38-1P 146115-83-5P 146188-26-3DP, 145169-24-0P carboxy-terminated, ester with 2-hydroxyethylmethacrylate 146716-99-6P 146717-07-9P 146716-90-7P 146716-92-9P 146817-61-0P 146817-67-6P 146817-57-4P **146817-58-5P** 149072-15-1P 149072-16-2P 149072-17-3P 147524-36-5P 149093-39-0P 149093-41-4P 149072-19-5P 149072-18-4P 149093-42-5P 149124-85-6P (preparation of, as binder resin)

L24 ANSWER 24 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1994:311614 CAPLUS

DOCUMENT NUMBER:

120:311614

TITLE:

Electrophotographic lithographic

printing plate with high

sensitivity to semiconductor laser

scanning method

INVENTOR(S):

Kato, Eiichi; Kasai, Kyosuke

PATENT ASSIGNEE(S):

Fuji Photo Film Co Ltd, Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 79 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JР 05034947	A2	19930212	JP 1991-207238	199107
PRIORITY APPLN. INFO.:	·		JP 1991-207238	25 199107 25

AB In an electrophotog. lithog. printing plate having ≥1 photoconductor layer containing a photoconductive ZnO, a spectral sensitizing dye and a binder resin, the photoconductor layer contains ≥1 binder resin (A) and ≥1 kind of nonaq. dispersion resin particles (B) whose average grain diameter is smaller than or equal to a maximum grain diameter

photoconductive ZnO particles:. The binder resin (A) contains the repeating unit [a1HCCa2(COOR3)] [a1,2 = H, halo, cyano, hydrocarbon; R3 = hydrocarbon] having weight average mol. weight 1,000-20,000 as a

component ≥30% and another polymer component 0.5-15% containing ≥1 polar moiety selected from PO3H2, SO3H, COOH, P(:O) (OH)R1

[R1 = hydrocarbon, OR2; R2 = hydrocarbon], and a group containing cyclic

anhydride. The nonaq. dispersion resin particles (B) are made of a copolymer obtained by dispersion polymerization of a monofunctional monomer

(C) in the presence of a dispersion-stabilizing resin, which, soluble in the nonaq. solvent, contains a substituent containing Si and/or F, in which the monofunctional monomer (C) contains W1(CH2)n1HC:CH2 and/or W2(CH2)n2CH2CH2X [W1,2 = SO2, CO, OCO; n1, n2 = 0, 1; and X = halo] and is soluble in the nonaq. solvent but becoming insol. upon polymerization

IT 135740-39-5P 146817-58-5P

(preparation of, electrophotog. lithog. printing
plate from)

RN 135740-39-5 CAPLUS

CN Pentanoic acid, 5-[(2-methyl-1-oxo-2-propenyl)oxy]-, polymer with 2-naphthalenyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 73903-37-4 CMF C9 H14 O4

CM 2

CRN 10475-46-4 CMF C14 H12 O2

RN 146817-58-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-naphthalenyl ester, polymer with 2-(phosphonooxy)ethyl 2-propenoate (9CI) (CA INDEX NAME)

CRN 32120-16-4 CMF C5 H9 O6 P

CM 2

CRN 19102-44-4 CMF C14 H12 O2

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IC ICM G03G005-05
```

ICS G03G005-05; G03G005-06; G03G005-08; G03G013-28

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST electrophotog lithog printing plate; binder

resin electrophotog lithog printing;

semiconductor laser scanning electrophotog lithog

149072-24-2DP, reaction product with ΙT 145169-30-8P 2-isocyanatoethyl methacrylate 149368-83-2P 149368-85-4P 149434-25-3P 149434-33-3P 149434-15-1P 149434-28-6P 149839-17-8P 149839-15-6P 149839-16-7P 149658-55-9P 149839-18-9P 149839-20-3P 149858-84-4P 149923-42-2P 149923-44-4P 149923-45-5P 149923-47-7P 149923-43-3P 149923-56-8P 149923-54-6P 149923-53-5P 149923-52-4P 149923-60-4P 149923-59-1P 149923-57-9P 149923-58-0P 149923-62-6P 149923-63-7P 149923-64-8P 149923-61-5P 150103-52-9P 149961-77-3P 149923-67-1P 149923-65-9P 152390-29-9P 152390-28-8P 152390-26-6P 152390-27-7P 152406-07-0P 152406-09-2P 152390-30-2P 152406-06-9P

152406-10-5P 152406-08-9P 152466-49-4P 152466-63-2P

153014-31-4P

(preparation and use of, electrophotog. lithog.

```
printing plate from)
                                                 126969-78-6P
     65697-21-4P
                   65697-22-5P
                                  126969-70-8P
IT
                                                   135740-18-0P
                    130952-79-3P
                                    131808-63-4P
     130094-33-6P
                                                   135740-33-9P
                                    135740-32-8P
                    135740-31-7P
     135740-30-6P
                                    135740-37-3P
                                                   135740-38-4P
                    135740-36-2P
     135740-35-1P
                                                   135740-44-2P
     135740-39-5P
                    135740-41-9P
                                    135740-43-1P
                                    135820-62-1P
                                                   139663-63-1P
                    135770-63-7P
     135740-46-4P
                                    145168-89-4P
                                                   145168-94-1P
                    145168-75-8P
     142648-25-7P
                                                   145169-24-0DP,
                                    145169-04-6P
                    145169-03-5P
     145169-02-4P
     carboxy-terminated, ester with 2-hydroxyethyl methacrylate
                                    145807-51-8P
                                                   145807-53-0P
                    145807-40-5P
     145807-38-1P
                                                   145807-62-1P
                                    145807-56-3P
     145807-54-1P
                    145807-55-2P
                                                   145807-66-5P
                    145807-64-3P
                                    145807-65-4P
     145807-63-2P
                                                   145807-72-3P
                    145807-70-1P
                                    145807-71-2P
     145807-68-7P
                                    146188-26-3DP, carboxy-terminated,
                    145807-80-3P
     145807-78-9P
     ester with 2-hydroxyethyl methacrylate
                                              146817-57-4P
                    146817-61-0P
                                    147524-36-5P
                                                   150497-92-0P
     146817-58-5P
     151688-53-8P
                    151688-55-0P
        (preparation of, electrophotog. lithog. printing
        plate from)
```

L24 ANSWER 25 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1994:148984 CAPLUS

DOCUMENT NUMBER:

120:148984

TITLE:

Manufacture of lithographic

printing plate having excellent

water-retaining properties

INVENTOR(S):

Kato, Eiichi

PATENT ASSIGNEE(S):

PATENT ASSIGNED (5).

SOURCE:

Fuji Photo Film Co Ltd, Japan Jpn. Kokai Tokkyo Koho, 81 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

LANGUAGE:

Patent Japanese

FAMILY ACC. NUM. COUNT:

Т: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05100504	A2	19930423	JP 1991-289414	199110 09
PRIORITY APPLN. INFO.:			JP 1991-289414	199110 09

AB The manufacture of a lithog. printing plate, which has ≥1 photoconductor layer on a conductive support and an

uppermost surface layer, comprises effecting imagewise exposure of the lithog. printing plate containing nonaq. dispersion resin particles in the surface layer and and a binder resin in the photosensitive layer to form a toner image and desensitizing nonimage regions of the photoconductor layer with a solution containing a hydrophilic compound having a Pearson's nucleophilic constant ≥5.5. The nonaq. dispersion resin particles are copolymer particles which are obtained by polymerizing

in a

nonaq. solvent a monofunctional monomer, which (soluble in the solvent but becoming insol. upon polymerization) contains formyl and/or CH(OA1)(OA2) [A1,2 = hydrocarbyl, organic residues combing together to form a ring], in the presence of a dispersion stabilizing resin made up of a repeating unit containing Si- and/or F-bearing substituent and the binder resin with a weight-average mol.

weight

1000-20,000 contains a repeating unit [CalHCa2(COOR1)] [a1,2 = H, halo, cyano, hydrocarbyl; R1 = hydrocarbyl]  $\geq$ 30% and a polymer component 0.5-15% containing  $\geq$ 1 kind of a polar moiety selected from PO3H2, SO3H, COOH, P(:O)(OH)R2 [R2 = hydrocarbyl, OR3; R3 = hydrocarbyl] and a group containing cyclic anhydride.

IT 135740-39-5P 146817-58-5P

(preparation of, for lithog. printing plate preparation)

RN 135740-39-5 CAPLUS

CN Pentanoic acid, 5-[(2-methyl-1-oxo-2-propenyl)oxy]-, polymer with 2-naphthalenyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 73903-37-4 CMF C9 H14 O4

CM 2

CRN 10475-46-4 CMF C14 H12 O2

RN 146817-58-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-naphthalenyl ester, polymer with 2-(phosphonooxy)ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 32120-16-4 CMF C5 H9 O6 P

CM 2

CRN 19102-44-4 CMF C14 H12 O2

IC ICM G03G013-28

ICS G03G005-05; G03G005-06; G03G005-147

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST lithog printing plate manuf; binder resin lithog printing plate; dispersion resin particle

lithog printing

IT 65697-21-4P 65697-22-5P 126969-78-6P 130094-33-6P 130952-79-3P 131808-63-4P 135740-18-0P 135740-30-6P

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135740-32-8P
                               135740-33-9P
                                               135740-35-1P
135740-31-7P
135740-36-2P
                               135740-38-4P 135740-39-5P
               135740-37-3P
                                               135740-46-4P
               135740-43-1P
                               135740-44-2P
135740-41-9P
                                               142648-25-7P
                               139663-63-1P
135770-63-7P
               135820-62-1P
                               145168-94-1P
                                               145169-02-4P
145168-75-8P
               145168-89-4P
                                               145169-26-2P
                               145169-24-0P
145169-03-5P
               145169-04-6P
                               145807-40-5P
                                               145807-41-6P
145169-30-8P
               145807-38-1P
                               145807-54-1P
                                               145807-55-2P
145807-51-8P
               145807-53-0P
                               145807-63-2P
                                               145807-64-3P
145807-56-3P
               145807-57-4P
145807-65-4P
               145807-66-5P
                               145807-68-7P
                                               145807-70-1P
                               145807-78-9P
                                               145807-80-3P
               145807-72-3P
145807-71-2P
               carboxy-terminated, ester with 2-hydroxyethyl
146188-26-3DP,
methacrylate
               146817-57-4P 146817-58-5P
                                             146817-61-0P
                                               149072-24-2DP, reaction
               147524-36-5P
                               147545-76-4P
146966-35-0P
                                                149368-83-2P
product with 2-isocyanatoethyl methacrylate
                               149434-21-9P
                                               149434-25-3P
                149434-15-1P
149368-85-4P
                149434-33-3P
                               149658-55-9P
                                               149698-33-9P
149434-28-6P
                                               149698-38-4P
                               149698-37-3P
149698-34-0P
                149698-35-1P
                               149698-42-0P
                                               149698-43-1P
                149698-40-8P
149698-39-5P
                                               149698-49-7P
                               149698-48-6P
149698-46-4P
                149698-47-5P
                                               149698-54-4P
                149698-52-2P
                               149698-53-3P
149698-50-0P
                               149698-57-7P
                                               149698-58-8P
149698-55-5P
                149698-56-6P
                                               149729-05-5P
                               149698-63-5P
                149698-60-2P
149698-59-9P
                                               149729-31-7P
149729-07-7P
                149729-28-2P
                               149729-30-6P
                               149765-50-4P
                                               149934-66-7P
149729-32-8P
                149729-33-9P
                                               152586-81-7DP, reaction
                               152586-80-6P
149962-75-4P
                151864-21-0P
product with acrylamide
                           153147-24-1P
   (preparation of, for lithog. printing plate
   preparation)
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L24 ANSWER 26 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN
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ACCESSION NUMBER:

1994:148980 CAPLUS

DOCUMENT NUMBER:

120:148980

TITLE:

Manufacture of lithographic plate from

electrophotographic photoreceptor

INVENTOR(S):

Kato, Eiichi; Kasai, Kyosuke Fuji Photo Film Co Ltd, Japan Jpn. Kokai Tokkyo Koho, 87 pp.

SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

1

PATENT INFORMATION:

PATENT ASSIGNEE(S):

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05061214	A2	19930312	JP 1991-250310	

199109 04

PRIORITY APPLN. INFO.:

JP 1991-250310

199109 04

AB The manufacture of a lithog. plate from an electrophotog. photoreceptor,

which has ≥1 photosensitive layer containing at least photoconductive ZnO grains, a spectral sensitizing dye, and a binder resin on a conductive support, comprises effecting imagewise exposure of the electrophotog. photoreceptor containing the binder resin in the photosensitive layer and ≥1

kind of nonaq. dispersion resin grains having the average grain

diameter

equal to or smaller than that of the maximum grain diameter of the ZnO grains to form a toner image and effecting desensitization process of nonimage regions by using a **solution** containing a hydrophilic compound with Pearson's nucleophilic constant  $\geq 5.5$ ;. The binder resin, with weight average mol. weight 1000-20,000, has a repeating

unit

[CHalCa2COOR1] [a1,2 = H, halo, cyano, hydrocarbyl; R1 = hydrocarbyl] as a polymer component  $\geq 30\%$  and another polymer component 0.5-15% containing  $\geq 1$  polar moiety selected from PO3H2, SO3H, COOH, and P(:O) (OH)R2 [R2 = hydrocarbyl or OR3; R3 = hydrocarbyl] and a moiety containing a cyclic anhydride group. The nonaq. dispersion resin grains are made of a copolymer obtained through dispersion polymerization of a monofunctional monomer, which contains formyl and/or CH(OA1) (OA2) [A1,2 = hydrocarbyl] and is

soluble

in the nonaq. solvent but becoming insol. upon polymerization, with a monofunctional monomer containing Si and/or F.

IT 135740-39-5P 146817-58-5P

(preparation of, for electrophotog. photoreceptor for lithog. plate preparation)

RN 135740-39-5 CAPLUS

CN Pentanoic acid, 5-[(2-methyl-1-oxo-2-propenyl)oxy]-, polymer with 2-naphthalenyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 73903-37-4 CMF C9 H14 O4

CM 2

CRN 10475-46-4 CMF C14 H12 O2

RN 146817-58-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-naphthalenyl ester, polymer with 2-(phosphonooxy)ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 32120-16-4 CMF C5 H9 O6 P

$$\begin{array}{c} \text{O} \\ || \\ \text{H}_2 \text{O}_3 \text{PO} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{C} - \text{CH} = \text{CH}_2 \end{array}$$

CM 2

CRN 19102-44-4 CMF C14 H12 O2

```
G03G005-05
          G03G005-05; G03G005-06; G03G005-08; G03G013-28
     74-6 (Radiation Chemistry, Photochemistry, and Photographic and
CC
     Other Reprographic Processes)
     electrophotog lithog printing plate manuf
ST
ΙT
     25719-51-1DP, 2-Ethylhexyl methacrylate homopolymer,
     carboxy-terminated, ester with 2-hydroxyethyl methacrylate
                   65697-21-4P
                                  65697-22-5P
                                                126969-78-6P
     52229-66-0P
                                    131808-63-4P
                                                   135740-18-0P
     130094-33-6P
                    130952-79-3P
                                                   135740-33-9P
                    135740-31-7P
                                    135740-32-8P
     135740-30-6P
                    135740-36-2P
                                    135740-37-3P
                                                   135740-38-4P
     135740-35-1P
                                    135740-43-1P
                                                   135740-44-2P
                    135740-41-9P
     135740-39-5P
                                                    139645-92-4P
     135740-46-4P
                    135770-63-7P
                                    135820-62-1P
                    142648-25-7P
                                    145807-49-4P
                                                   146817-57-4P
     139663-63-1P
                                    147130-23-2P
                                                   147524-36-5P
                    146817-61-0P
     146817-58-5P
     149072-21-9DP, reaction product with allylamine
                                                         149093-90-3DP,
     reaction product with isocyanoethyl methacrylate
                                                          149234-56-0P
                    149234-58-2P
                                    149234-59-3P
                                                   149234-60-6P
     149234-57-1P
     149234-61-7P
                    149234-63-9DP, reaction product with
     2-isocyanatoethyl methacrylate
                                       149235-47-2P
                                                       149235-75-6P
                                                    149295-67-0P
                                    149295-66-9P
     149265-77-0P
                    149295-65-8P
                                    149433-97-6P
     149368-81-0P
                    149368-84-3P
                                                    149433-98-7P
     149433-99-8P
                    149434-02-6P
                                    149434-04-8P
                                                    149434-06-0P
                                    149434-11-7P
                                                    149434-17-3P
     149434-09-3P
                    149434-10-6P
     149434-22-0P
                                    152640-58-9P
                                                    152640-60-3P
                    149434-38-8P
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                                    152640-64-7P
     152640-61-4P
                    152640-62-5P
                    152681-25-9P
                                    152681-27-1P
                                                    152681-47-5P
     152681-24-8P
                                    152725-67-2P
                                                    152725-68-3P
                    152725-66-1P
     152681-48-6P
                                                    152725-72-9P
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     152725-69-4P
                    152725-70-7P
                                    152725-75-2P
                                                    152725-76-3P
     152725-73-0P
                    152725-74-1P
                    152725-78-5P
                                    153014-29-0P
     152725-77-4P
        (preparation of, for electrophotog. photoreceptor for lithog. plate
        preparation)
```

L24 ANSWER 27 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:120795 CAPLUS

DOCUMENT NUMBER: 120:120795

TITLE: Electrophotographic lithographic

printing plate giving high

sensitivity to semiconductor laser

scanning method

INVENTOR(S):

PATENT ASSIGNEE(S):

SOURCE:

Kato, Eiichi; Kasai, Kyosuke Fuji Photo Film Co Ltd, Japan Jpn. Kokai Tokkyo Koho, 74 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

LANGUAGE:

Patent Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE 	APPLICATION NO.	DATE
 JP 05034948	A2	19930212	JP 1991-213047	199107
PRIORITY APPLN. INFO.:			JP 1991-213047	31
				199107 31

AB In an electrophotog. lithog. printing plate
having ≥1 photoconductor layer containing a photoconductive ZnO,
a spectral sensitizing dye and a binder resin, the
photoconductor layer contains ≥1 following binder resin (A)
and ≥1 kind of nonaq. dispersion resin particles (B) whose
average grain diameter is smaller than or equal to the maximum grain
diameter of

the photoconductive ZnO particles:. The binder resin (A) contains a repeating unit [a1HCCa2(COOR3)] [a1,2 = H, halo, cyano, hydrocarbon; R3 = hydrocarbon] having weight average mol. weight 1,000-20,000 as a polymer

component  $\geq 30\%$  and further contains another polymer component 0.5-1% containing  $\geq 1$  polar moiety selected from PO3H2, SO3H, COOH, P(:O)(OH)R1 [R1 = hydrocarbon, OR2; R2 = hydrocarbon], and a group containing a cyclic anhydride. The nonaq. dispersion resin particles (B) are made of a copolymer obtained by dispersion

polymerization
 of a monofunctional monomer (C) with a monofunction monomer (D) in
 the presence of a dispersion-stabilizing resin soluble in the nonaq.
 solvent, in which the monofunctional monomer (C) contains
 W1 (CH2) n1HC: CH2 and/or W2 (CH2) n2CH2CH2X [W1, 2 = SO2, CO, OCO; n1, n2
 = 0, 1; and X = halo] and is soluble in the nonaq. solvent
 but becoming insol. upon polymerization and the monofunctional

monomer (D)

contains a substituent containing Si and/or F.

IT 135740-39-5P 146817-58-5P

(preparation of, electrophotog. lithog. printing plate from)

RN 135740-39-5 CAPLUS

CN Pentanoic acid, 5-[(2-methyl-1-oxo-2-propenyl)oxy]-, polymer with 2-naphthalenyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 73903-37-4 CMF C9 H14 O4

CM 2

CRN 10475-46-4 CMF C14 H12 O2

RN 146817-58-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-naphthalenyl ester, polymer with 2-(phosphonooxy)ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 32120-16-4 CMF C5 H9 O6 P

CRN 19102-44-4 CMF C14 H12 O2

```
IC
     ICM
          G03G005-05
          G03G005-05; G03G005-06; G03G005-08; G03G013-28
     ICS
     74-6 (Radiation Chemistry, Photochemistry, and Photographic and
CC
     Other Reprographic Processes)
     electrophotog lithog printing plate; binder
ST
     resin electrophotog lithog printing;
     photoconductor layer electrophotog lithog printing
     79-41-4DP, fluoroalkyl derivative, polymers with allyl Et sulfone and
ΙΤ
                      97-90-5DP, polymers with allyl Et sulfone and
     methacrylates
                      106-91-2DP, polymers with allyl Et sulfone and
     methacrylates
                      142-09-6DP, polymers with allyl Et sulfone and
     methacrylates.
                      149839-06-5DP, polymers with methacrylates
     methacrylates
                                    151733-29-8P
                                                    151733-30-1P
     151733-27-6P
                     151733-28-7P
                                                    151733-34-5P
                                    151733-33-4P
                     151733-32-3P
     151733-31-2P
                                                    151752-80-6P
                     151735-81-8P
                                    151752-65-7P
     151733-35-6P
                     151752-82-8P
                                                    151752-84-0P
                                    151752-83-9P
     151752-81-7P
                                                    151758-73-5P
                                    151758-72-4P
                     151758-71-3P
     151752-85-1P
                                                    151758-79-1P
                     151758-75-7P
                                    151758-77-9P
     151758-74-6P
                                                    151758-84-8P
                                    151758-83-7P
                     151758-82-6P
     151758-81-5P
                                                    151835-58-4P
                     151767-55-4P
                                    151813-68-2P
     151767-53-2P
                     152776-26-6P
     152751-59-2P
        (preparation and use of, electrophotog. lithog.
        printing plate from)
     25719-51-1DP, 2-Ethylhexyl methacrylate homopolymer,
ΙT
     carboxy-terminated, ester with glycidyl methacrylate
                                                              52229-66-0P
                                                  126969-78-6P
     65697-21-4P
                    65697-22-5P
                                  126969-70-8P
                                                    135740-18-0P
                                    131808-63-4P
                     130952-79-3P
     130094-33-6P
                                                    135740-33-9P
                                    135740-32-8P
                     135740-31-7P
     135740-30-6P
                                                    135740-38-4P
                     135740-36-2P
                                    135740-37-3P
     135740-35-1P
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                                    135740-43-1P
                     135740-41-9P
     135740-39-5P
                                                    139663-63-1P
                                    135820-62-1P
                     135770-63-7P
     135740-46-4P
                                    146817-57-4P 146817-58-5P
                     145807-49-4P
     142648-25-7P
                                                    149072-21-9DP, reaction
                                    147524-36-5P
                     147130-23-2P
     146817-61-0P
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149234-63-9DP, reaction product with
product with allylamine
                                149235-47-2P
                                               149368-81-0P
2-isocyanatoethyl methacrylate
                            149433-98-7P
                                            149433-99-8P
            149433-97-6P
149368-84-3P
                                            149434-06-0P
                             149434-04-8P
149434-01-5P 149434-02-6P
                             149434-11-7P
                                            149434-17-3P
              149434-10-6P
149434-09-3P
149434-22-0P
              149434-38-8P
   (preparation of, electrophotog. lithog. printing
   plate from)
```

L24 ANSWER 28 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1994:41999 CAPLUS

DOCUMENT NUMBER:

120:41999

TITLE:

Electrophotographic lithographic

printing plate giving high

sensitivity to semiconductor laser

scanning method

INVENTOR(S):

Kato, Eiichi; Kasai, Kyosuke Fuji Photo Film Co Ltd, Japan

PATENT ASSIGNEE(S):

Jpn. Kokai Tokkyo Koho, 84 pp.

SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JР 05034949	A2	19930212	JP 1991-213049	199107
DEFENTANCE THE	•		JP 1991-213049	31
PRIORITY APPLN. INFO.:			01 1551 213045	199107 31

In an electrophotog. lithog. plate having ≥1 photoconductor layer containing photoconductive ZnO grains, a spectral sensitizing dye and a binder resin with the photoconductor layer containing ≥1 following binder resin (A) and ≥1 kind of nonaq. dispersion resin particles (L) whose average grain diameter

smaller than or equal to the maximum grain diameter of the photoconductive

ZnO particles, a toner image is formed on the photoreceptor by imagewise exposure following elec. charging, and nonimage regions of the photoconductor layer are desensitized with a hydrophilic compound-containing solution having Pearson's nucleophilic constant ≥5.5:. The binder resin (A) (weight average mol. weight

1,000-20,000)

contains a repeating unit [a1HC-Ca2(COOR3)] [a1,2 = H, halo, cyano, hydrocarbon; R3 = hydrocarbon] as a polymer component ≥30% and further contains a polymer component 0.5-15% having ≥1 polar moiety selected from PO3H2, SO3H, COOH, P(:O)(OH)R1 [R1 = hydrocarbon, OR2; R2 = hydrocarbon], and group containing cyclic anhydride. The nonaq. dispersion resin particles (L) are made of a copolymer obtained by dispersion polymerization of a monofunctional monomer

(C) in the presence of a dispersion stabilizing resin, which, soluble in a nonaq. solvent, contains a repeating unit containing a moiety having Si and/or F, in which the monofunctional monomer (C), which, soluble in the nonaq. solvent but insol. upon polymerization, contains ≥1 functional group from formyl and/or HC(OA1)(OA2) [A1,2 = hydrocarbon; or may form a cyclic residue by combining together].

IT 135740-39-5P 146817-58-5P

(preparation of, electrophotog. lithog. printing plate from)

RN 135740-39-5 CAPLUS

CN Pentanoic acid, 5-[(2-methyl-1-oxo-2-propenyl)oxy]-, polymer with 2-naphthalenyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 73903-37-4 CMF C9 H14 O4

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ \text{HO}_2\text{C}-\text{(CH}_2)}_4-\text{O}-\text{C}-\text{C}-\text{Me} \end{array}$$

CM 2

CRN 10475-46-4 CMF C14 H12 O2

RN---146817-58-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-naphthalenyl ester, polymer with

2-(phosphonooxy)ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 32120-16-4 CMF C5 H9 O6 P

$$^{\circ}_{\text{H}_2\text{O}_3\text{PO}-\text{CH}_2-\text{CH}_2-\text{O}-\text{C}-\text{CH}}\!\!=\!\!\text{CH}_2$$

CM 2

CRN 19102-44-4 CMF C14 H12 O2

- IC ICM G03G005-05
  - ICS G03G005-05; G03G005-06; G03G005-08; G03G013-28
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST electrophotog lithog printing plate; binder

resin electrophotog lithog printing;

photoconductor layer electrophotog lithog printing

				· <del>-</del>
IT	65697-21-4P	65697-22-5P	126969-70-8P	126969-78-6P
	130094-33-6P	130952-79-3P	131808-63-4P	135740-18-0P
	135740-30-6P	135740-31-7P	135740-32-8P	135740-33-9P
	135740-35-1P	135740-36-2P	135740-37-3P	135740-38-4P
	135740-39-5P	135740-41-9P	135740-43-1P	135740-44-2P
	135740-46-4P	135770-63-7P	135820-62-1P	139663-63 <b>-</b> 1P
	142648-25-7P	145168-75-8P	145168-89-4P	145168-94-1P
	145169-02-4P	145169-03-5P	145169-04-6P	145169-24-0P
	145169-30-8P	145807-38-1P	145807-40-5P	145807-51 <b>-</b> 8P
	145807-53-0P	145807-54-1P	145807 <i>=</i> 55-2P	145807-56-3P
	145807-62-1P	145807-63-2P	145807-64-3P	145807-65-4P

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145807-66-5P
               145807-68-7P
                              145807-70-1P
                                             145807-71-2P
                                             146188-26-3DP,
145807-72-3P
               145807-78-9P
                              145807-80-3P
carboxy-terminated, ester with 2-hydroxyethyl methacrylate
146817-57-4P 146817-58-5P 147524-36-5P
                                          149072-24-2DP,
reaction product with 2-isocyanatoethyl methacrylate
                                                       149368-83-2P
                              149434-25-3P
                                             149434-28-6P
149368-85-4P
               149434-15-1P
149434-33-3P
               149658-55-9P
                              149698-39-5P
                                             149698-40-8P
                                             149698-47-5P
149698-42-0P
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                              149698-46-4P
               149698-49-7P
                              149698-50-0P
                                             149698-51-1P
149698-48-6P
                                             149698-56-6P
149698-52-2P
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                              149698-55-5P
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149698-57-7P
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                              149729-30-6P
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151755-00-9P
               151755-06-5P
                              151755-07-6P
                                             151864-21-0P
151755-05-4P
152103-17-8P
   (preparation of, electrophotog. lithog. printing
   plate from)
```

L24 ANSWER 29 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1993:613948 CAPLUS

DOCUMENT NUMBER:

119:213948

TITLE:

Electrophotographic lithographic

printing plate

INVENTOR(S):

Kato, Eiichi; Kasai, Seishi

PATENT ASSIGNEE(S):

Fuji Photo Film Co., Ltd., Japan

SOURCE: PCT Int. Appl., 242 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 WO 9218906	A1	19921029	WO 1992-JP465	199204 13
W: US RW: AT, BE, CH, JP 04314056	DE, DK A2		, GR, IT, LU, MC, NL, S JP 1991-106511	SE 199104 12
JP 3112176 JP 04362648	B2 - A2		JP 1991-165249	

		Page 73			
					199106 11
JP 04362649	A2	19921215	JP 1991-165250		199106 11
JP 05034946	A2	19930212	JP 1991-207237		199107
JP 3112178 EP 535251	B2 A1	20001127 19930407	EP 1992-908530		199204
EP 535251 R: DE, GB	В1	19970730			13
US 5294507	A	19940315	US 1992-990338		199212 14
PRIORITY APPLN. INFO.:			JP 1991-106511	А	199104 12
			JP 1991-165249	A	199106 11
			JP 1991-165250	А	199106 11
			JP 1991-207237	A	199107 25
			WO 1992-JP465	W	199204 13

AB An electrophotog. lithog. printing plate having a photoconductive layer prepared by the dispersion polymerization of a resin

soluble

<sup>(</sup>A) composed of polymer component with specified repeating units and a polar polymer component and having an average mol. weight of 1,000-20,000

and a monomer (C) with a functional group yielding, when decomposed, at least one group selected among thiol, sulfo, amino, and (ZO:)PR(ZO-H) [ZO = O, S; R = ZO-H, hydrocarbon, ZO-R1 (R1 = hydrocarbon)] in the presence of a dispersion stabilizing resin

in a nonaq. solvent, said layer further containing dispersed resin particles (L) having Si- and/or F-containing substituents. This plate has good electrophotog, qualities and H2O retentivity in virtue of appropriate interactions among Zn oxide, a spectral sensitizer, the resin (A) and the resin particle (L), and gives excellent printed images with a high resistance to abrasion on the press even under severe conditions. Also, it works effectively in the scanning exposure using semiconductor laser beams.

IT 135740-39-5P 146817-58-5P

(preparation of, electrophotog. lithog. printing plate from)

RN 135740-39-5 CAPLUS

Pentanoic acid, 5-[(2-methyl-1-oxo-2-propenyl)oxy]-, polymer with 2-naphthalenyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CN

CRN 73903-37-4 CMF C9 H14 O4

CM 2

CRN 10475-46-4 CMF C14 H12 O2

RN 146817-58-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-naphthalenyl ester, polymer with 2-(phosphonooxy)ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 32120-16-4 CMF C5 H9 06 P

CM 2

CRN 19102-44-4 CMF C14 H12 O2

```
IC
          G03G005-05
CC
     74-3 (Radiation Chemistry, Photochemistry, and Photographic and
     Other Reprographic Processes)
ST
     electrophotog lithog printing plate
ΙT
     149212-64-6P
                     149212-66-8P
                                     149212-68-0P
                                                     149212-70-4P
                     149212-73-7P
                                     149212-74-8P
                                                     149212-75-9P
     149212-71-5P
                                     149212-78-2P
                                                     149212-79-3P
     149212-76-0P
                     149212-77-1P
                                     149212-83-9P
                                                     149212-84-0P
     149212-80-6P
                     149212-81-7P
                                     149212-87-3P
                                                     149212-88-4P
     149212-85-1P
                     149212-86-2P
                                     149234-20-8P
                                                     149234-30-0P
     149212-89-5P
                     149212-90-8P
                                                     149234-37-7P
     149234-31-1P
                     149234-33-3P
                                     149234-35-5P
                     149234-41-3P
                                     149234-42-4P
                                                     149234-44-6P
     149234-39-9P
                                     149234-48-0P
                                                     149234-49-1P
     149234-45-7P
                     149234-47-9P
                     149234-51-5P
                                     149234-52-6P
                                                     149234-54-8P
     149234-50-4P
                                                     149234-59-3P
     149234-56-0P
                     149234-57-1P
                                     149234-58-2P
                                                     149234-65-1P
     149234-60-6P
                     149234-61-7P
                                     149234-64-0P
                                                     149234-69-5P
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                                     149234-68-4P
     149234-66-2P
     149235-74-5P
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                     149235-75-6P
                                     149235-80-3P
     149235-83-6P
                     149265-77-0P
                                     149275-06-9P
                                                     149295-65-8P
                                                     149295-70-5P
                     149295-67-0P
                                     149295-69-2P
     149295-66-9P
                                     149295-73-8P
                                                     149295-74-9P
                     149295-72-7P
     149295-71-6P
     149295-75-0P
                     149295-76-1P
                                     149295-77-2P
                                                     149295-78-3P
     149295-79-4P
                     149295-80-7P
                                     149295-81-8P
                                                     149295-86-3P
                     149545-01-7P
     149333-66-4P
```

(preparation and use of, electrophotog. lithog.

```
printing plate from)
     9011-14-7DP, Methyl methacrylate homopolymer, carboxy-terminated
ΙT
     25719-51-1DP, carboxy-terminated, ester with 2-hydroxyethyl
                                   65697-21-4P, Benzyl
                    52229-66-0P
     methacrylate
                                                65697-22-5P
                                                               126969-78-6P
     methacrylate-methacrylic acid copolymer
                    128338-05-6P, Benzyl methacrylate-thiosalicylic acid
     128338-04-5P
               130094-33-6P
                               130952-79-3P
                                              131808-63-4P
                                                              135740-18-0P
     telomer
                                                    135740-33-9P
     135740-30-6P
                    135740-31-7P
                                    135740-32-8P
                                    135740-38-4P 135740-39-5P
     135740-35-1P
                    135740-37-3P
                                    135740-44-2P
                                                    135740-46-4P
     135740-41-9P
                    135740-43-1P
                                                    138059-26-4P
     135740-47-5P
                    135770-63-7P
                                    135820-62-1P
                                                    138059-31-1P
                                    138059-30-0P
     138059-27-5P
                    138059-28-6P
                                                    138059-35-5P
     138059-32-2P
                                    138059-34-4P
                    138059-33-3P
                                    carboxy-terminated
                    138123-83-8DP,
                                                          139357-81-6P
     138059-36-6P
                                                    142648-25-7P
                    139989-86-9P
                                    142199-53-9P
     139645-92-4P
                                    145168-94-1P
                                                    145169-02-4P
     145168-75-8P
                    145168-89-4P
                                                    145169-30-8P
                                    145169-26-2P
     145169-03-5P
                    145169-04-6P
                                    145807-49-4P
                                                    145807-51-8P
                    145807-41-6P
     145807-40-5P
                                                    145807-56-3P
                                    145807-55-2P
     145807-53-0P
                    145807-54-1P
                                    145807-63-2P
                                                    145807-65-4P
                     145807-62-1P
     145807-57-4P
                                                    145807-71-2P
                     145807-68-7P
                                    145807-70-1P
     145807-66-5P
                                                    146188-26-3DP,
                                    145807-80-3P
     145807-72-3P
                     145807-78-9P
     carboxy-terminated, ester with 2-hydroxyethyl methacrylate
                                    146717-07-9P
                                                    146817-57-4P
                     146716-92-9P
     146716-90-7P
                                                    147524-36-5P
                     146817-61-0P
                                    147130-23-2P
     146817-58-5P
                                                   149072-24-2DP, reaction
                                    allyl amide
                     149072-21-9DP,
     149072-19-5P
     product with 2-isocyanatoethyl methacrylate
                                                     149093-39-0P
                     149234-63-9DP, reaction product with
     149234-62-8P
                                                       149265-78-1P
                                       149235-47-2P
     2-isocyanatoethyl methacrylate
                                                    149265-84-9P
                                    149265-82-7P
     149265-79-2P
                     149265-80-5P
     149265-85-0P
                     149265-87-2P
                                    149265-89-4P
                                                    149295-26-1P
                                    149368-84-3P
                                                    149433-97-6P
                     149368-83-2P
     149368-81-0P
                                    149434-00-4P
                                                    149434-01-5P
     149433-98-7P
                     149433-99-8P
                                                    149434-06-0P
                     149434-03-7P
                                    149434-04-8P
     149434-02-6P
                                                    149434-15-1P
                                    149434-11-7P
                     149434-10-6P
     149434-09-3P
                                                    149434-24-2P
                                    149434-22-0P
                     149434-21-9P
     149434-17-3P
                                    149434-33-3P
                                                    149434-35-5P
                     149434-28-6P
     149434-25-3P
     149434-38-8P
                     149658-55-9P
        (preparation of, electrophotog. lithog. printing
        plate from)
                       CAPLUS COPYRIGHT 2005 ACS on STN
     ANSWER 30 OF 33
L24
                          1984:601566 CAPLUS
ACCESSION NUMBER:
                          101:201566
DOCUMENT NUMBER:
```

Positive-working photosensitive

du Pont de Nemours, E. I., and Co. , USA

benzoin esters Lee, Ross A.

TITLE:

INVENTOR(S):

PATENT ASSIGNEE(S):

SOURCE:

U.S., 10 pp.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	US 4469774	А	19840904	US 1983-479493	
					198303 28
	EP 123159	A2	19841031	EP 1984-103284	
					198403 24
	EP 123159	A3	19870225		
	EP 123159	B1	19900905		
	R: DE, FR, GB,	NL		•	
	JP 59184209	A2	19841019	JP 1984-57509	
					198403 27
	JP 05001286	B4	19930107		
PRIO	RITY APPLN. INFO.:			US 1983-479493 A	198303 · 28

GΙ

Ι

Pos.-working storage stable photosensitive compound useful AΒ for preparation of lithog. printing plates and photoresists comprises a polymer containing repeating units I (R = 3'-methoxy, 3',4'-dimethoxy, 3',5'-dimethoxy; R1 = 3-methoxy, 3,4-dimethoxy, 3,4-benzo, H; R2 = H, Me), -CR3R4CHR5- (R3 = CO2H, SO3H, C1-4 carboxyalkyl, carboethoxy monophthalate, β-sulfocarboethoxy; R4 = H, Me; R5 = H, Me, CO2H), and -CR6R7CHR8- (R6 = CN, CO2R9 where R9 = C1-10 alkyl, β-hydroxyalkyl; R7,R8 = H, Me). Thus, a Cu clad circuit board was coated with a composition containing 3',5'-dimethoxybenzoin acrylate-acrylic acid polymer 50, triethylene glycol diacetate 5 mg, Me2CO 0.1 mL, dried, imagewise exposed for 2 min by a bank of black light blue fluorescent lamp, developed in 3% aqueous Na2CO3/NaHCO3 (9:1)

solution to give a pos. resist image. The Cu in the exposed areas was etched with 20% aqueous FeCl3 at 90°F, after washing with H2O and Me2CO a pos. Cu image remained on the circuit board.

IT 92934-14-0

(photoimaging pos. image forming composition containing, preparation of)

RN 92934-14-0 CAPLUS

CN 1,2-Benzenedicarboxylic acid, mono[2-[(1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 1-(3,5-dimethoxyphenyl)-2-(2-naphthalenyl)-2-oxoethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 92934-13-9 CMF C23 H20 O5

CM 2

CRN 30697-40-6 CMF C13 H12 O6

```
CH2-CH2-O-
       CO2H
IC
     G03C001-78
NCL
     430270000
CC
     74-5 (Radiation Chemistry, Photochemistry, and Photographic and
     Other Reprographic Processes)
ΙT
     Photoimaging compositions and processes
        (photosensitive polymeric esters of alkoxybenzoin as,
        for formation of pos. images)
     Lithographic plates
ΤТ
     Printing plates
        (photosensitive pos.-working polymeric esters of
        alkoxybenzoin for preparation of)
ΙT
     25104-37-4
        (photoimaging composition containing pos.-working photosensitive
        benzoin ester polymer and)
     90-47-1
               61724-31-0
ΙT
        (photoimaging composition for lithog. plate fabrication containing
        pos.-working photosensitive benzoin ester polymer and)
     1330-78-5
                 25135-39-1
ΙT
        (photoimaging composition for lithog. plates fabrication containing
        pos.-working photosensitive benzoin ester polymer and)
     92934-11-7 92934-12-8 92934-14-0
ΤТ
                                          92934-16-2
     92934-17-3
                                             92934-20-8
                  92934-18-4
                               92934-19-5
                               92951-10-5
     92934-23-1
                  92941-54-3
        (photoimaging pos. image forming composition containing,
preparation of)
     111-21-7
        (photoresist for printed circuits fabrication containing
pos.-working
        photosensitive benzoin ester polymer and)
     ANSWER 31 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN
                         1984:200978 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         100:200978
TITLE:
                         Light-sensitive composition for
```

lithographic plates

Ger. Offen., 27 pp.

Nagano, Teruo; Nagashima, Akira

Fuji Photo Film Co., Ltd., Japan

INVENTOR (S):

SOURCE:

PATENT ASSIGNEE (S):

CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAT <b>-</b>	ENT NO.	KIND	DATE	APPLICATION NO.	DATE
 D <b>e</b>	3317919	A1	19831124	DE 1983-3317919	198305
JP	58203433	A2	19831126	JP 1982-85765	17 198205
	03040378 2125177	B4 A1	19910618 19840229	GB 1983-13425	<ul><li>21</li><li>198305</li></ul>
	2125177 4493884	B2 A	19860305 19850115	US 1983-497282	16 198305 23
PRIORITY	APPLN. INFO.:		,	JP 1982-85765 A	198205 21

GΙ

$$(CH_2CR)_n$$
  $(CH_2CH)_n$   $CH_2O_2C$   $OH$   $II$ 

AB Lithog. printing plates with a high degree of sensitivity and a long use time are prepared from photosensitive compns. containing o-naphthoguinonediazides and polymers with monomer units of the formula I (R = H or Me; and Z = Hphenylene or naphthylene). Thus, II was prepared by reacting vinylbenzyl chloride and p-HOC6H4CO2Na in DMSO to give vinylbenzyl p-hydroxybenzoate which was polymerized in the presence of 2,2'-azidobis(2,4-dimethylvaleronitrile). A treated and cleaned Al plate was dipped in a solution of acetone-pyrogallol

copolymer 1,2-naphthoquinone-2-diazido-5-sulfonate 0.9, II 1.9, phthalic anhydride 0.2, 2-(p-butoxyphenyl)-4,6-bis(trichloromethyl)-s-triazine 0.02, 1,2-naphthoquinone-2-diazido-4-sulfonyl chloride 0.02, CI 42595 dye 0.03, ethylene dichloride 15, and methyl cellosolve 8 g. This plate was then contacted with a line-image diapos. and a half-tone image, exposed to an arc lamp, and developed in a 4% aqueous Na metasilicate solution to give a printing plate which gave 80,000 copies in an offset printer without loss of copy quality.

IT 89437-30-9 89437-32-1 89596-46-3

(photosensitive compns. containing, for lithog. plates with high sensitivity and printing durability)

RN 89437-30-9 CAPLUS

1-Naphthalenecarboxylic acid, 4-ethoxy-2-hydroxy-, [(1-methylethenyl)phenyl]methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CN

CRN 89437-29-6 CMF C23 H22 O4 CCI IDS



RN 89437-32-1 CAPLUS

1-Naphthalenecarboxylic acid, 4-(2-bromoethoxy)-2-hydroxy-, [(1-methylethenyl)phenyl]methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CN

CRN 89437-31-0 CMF C23 H21 Br O4 CCI IDS

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{D1-C-Me} \end{array}$$

RN 89596-46-3 CAPLUS

CN 1-Naphthalenecarboxylic acid, 2-hydroxy-4-(2-phenylethoxy)-,
[(1-methylethenyl)phenyl]methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 89596-45-2 CMF C29 H26 O4 CCI IDS



- IC G03C001-72; G03F007-08; C08L025-18; C08K005-28; B05D005-06; B41N001-00
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST lithog plate **photosensitive** polyvinylbenzyl ester; vinylbenzyl alc ester polymer lithog; naphthoquinonediazide **photosensitive** lithog plate
- IT Lithographic plates

(photosensitive compns. containing naphthoquinonediazide derivative and vinylbenzyl alc. ester polymer for)

IT Phenolic resins, uses and miscellaneous

(photosensitive compns. containing naphthoquinonediazido derivative and vinylbenzyl alc. ester polymer and, for lithog . plates with high sensitivity and printing durability)

- IT 85-44-9 2390-60-5 9016-83-5 36451-09-9 79285-14-6 (photosensitive compns. containing naphthoquinonediazide derivative and vinylbenzyl alc. ester polymer and, for lithog plates with high sensitivity and printing durability)
- IT 89437-33-2 89437-48-9

(photosensitive compns. containing naphthoquinonediazide derivative and, for lithog. plates with high sensitivity and printing durability)

62655-78-1 68584-99-6 68584-99-6 ΙT (photosensitive compns. containing vinylbenzyl alc. ester polymer and)

89437-10-5D, polymers 89437-11-6D, 89437-09-2D, polymers ΙT polymers 89437-12-7D, polymers 89437-13-8D, polymers 89437-26-3 89437-28-5 **89437-30-9 89437-32-1** 89596-46-3

> (photosensitive compns. containing, for lithog. plates with high sensitivity and printing durability)

ANSWER 32 OF 33 CAPLUS COPYRIGHT 2005 ACS on STN L24

ACCESSION NUMBER:

1976:37325 CAPLUS

DOCUMENT NUMBER:

84:37325

TITLE:

Lithographic plate comprising a light-sensitive

polymer

INVENTOR(S):

Parker, Edward H.; Harris, Edward M.; Meador,

Jim D.

PATENT ASSIGNEE(S):

Western Litho Plate and Supply Co., USA U.S., 13 pp. Division of U.S. 3,852,256.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

SOURCE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3909269	A	19750930	US 1973-415356	197311
US 3852256	Ä	19741203	US 1972-272796	13 197207
PRIORITY APPLN. INFO.:			US 1972-272796 A3	18 197207 18

For diagram(s), see printed CA Issue. GΙ

Light-sensitive polymers of glycidyl methacrylate derivs. (I; R1, AΒ R2, R3 are H, halogen, or lower alkyl; R4, R5 are OH, halogen, alkoxy, aryloxy, aralkoxy, alkoxyalkoxy, aryloxyalkoxy, alkenylacyloxy, aralkenylacyloxy, and ≥1 of these is an azidobenzoyloxy or azidonaphthoyloxy group) are used to prepare lithog. printing plates. Thus,

p-azidobenzoyloxyhydroxypropyl methacrylate polymer, prepared from poly(glycidyl methacrylate) and p-azidobenzoic acid, was sensitized, coated on an Al support, exposed, and developed to give an image suitable for printing purposes.

IT 56258-65-2

(lithog. plate light-sensitive compns. of)

RN 56258-65-2 CAPLUS

CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, homopolymer, 3-azido-2-naphthalenecarboxylate (9CI) (CA INDEX NAME)

CM 1

CRN 55766-45-5 CMF C11 H7 N3 O2

CM 2

CRN 25067-05-4 CMF (C7 H10 O3) x

CCI PMS

CM 3

CRN 106-91-2 CMF C7 H10 O3

$$\begin{array}{c|c} \circ & \circ & \mathsf{CH}_2 \\ & \parallel & \parallel \\ \mathsf{CH}_2 - \mathsf{O} - \mathsf{C} - \mathsf{C} - \mathsf{Me} \end{array}$$

IC G03C

NCL 096086000P

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)

IT 14848-01-2D, Benzoyl chloride, 4-azido-, reaction product with glycidyl methacrylate polymer 56258-62-9 56258-63-0 56258-64-1 56258-65-2 57903-75-0 58013-73-3

(lithog. plate light-sensitive compns. of)

CAPLUS COPYRIGHT 2005 ACS on STN L24 ANSWER 33 OF 33

ACCESSION NUMBER:

1971:422680 CAPLUS

DOCUMENT NUMBER:

75:22680

TITLE:

Photosensitive polymeric coating systems

INVENTOR(S):

Skoultchi, Martin

PATENT ASSIGNEE(S):

National Starch and Chemical Corp.

SOURCE:

U.S., 9 pp. CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
us 3575925	A.	19710420	US 1968-737281	196806
PRIORITY APPLN. INFO.:			US 1968-737281 A	17 . 196806 . 17

For diagram(s), see printed CA Issue. GΙ

Photosensitive polymers used in lithography and chemical milling were AΒ manufactured by polymerizing vinyl monomers with ethylenically

unsatd. benzoic

acids. phenols, and naphthoic acids prepared by treating the acid or phenol with glycidyl acrylate or methacrylate. For example, 113 parts o- $(\beta$ -naphthoyl)benzoic acid was treated 2.5 hr with glycidyl acrylate 75.5, Me4N+Cl- 2.5, and 4-MeOC6H4OH 0.2 part at 70°, giving .apprx.96 I. Copolymn. of 3 parts Bu methacrylate with 7 parts I in 3:1 benzene-CH2Cl2 gave a lacquer which was diluted with Me Et ketone to 10 solids and coated on a 0.01 in. Al plate, dried, exposed 3 min to a 275W sunlamp through a dot neg., and processed to form a printing plate.

33272-84-3 33272-86-5 33293-95-7 ΙT

33293-96-8

(coatings, on lithographic printing plates,

photosensitive)

33272-84-3 CAPLUS RN

Benzoic acid, 2-(2-naphthalenylcarbonyl)-, 2-hydroxy-3-[(1-oxo-2-CN propenyl)oxy]propyl ester, polymer with ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM

CRN 33266-47-6

CMF C24 H20 O6

CM 2

CRN 140-88-5 CMF C5 H8 O2

RN 33272-86-5 CAPLUS

CN Benzoic acid, m-1-naphthoyl-, 2,3-dihydroxypropyl ester 3-methacrylate, polymer with ethyl acrylate (8CI) (CA INDEX NAME)

CM 1

CRN 47682-60-0 CMF C25 H22 O6

CM 2

CRN 140-88-5 CMF C5 H8 O2

RN 33293-95-7 CAPLUS

CN 1-Naphthalenecarboxylic acid, 8-benzoyl-, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester, polymer with butyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 33266-50-1 CMF C25 H22 O6

CM 2

CRN 141-32-2 CMF C7 H12 O2

RN 33293-96-8 CAPLUS

CN 1-Naphthalenecarboxylic acid, 8-(1-naphthalenylcarbonyl)-,

2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester, polymer with butyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 33266-51-2 CMF C29 H24 O6

CM 2

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

IC C08F

NCL 260047000

CC 42 (Coatings, Inks, and Related Products)

IT 33272-84-3 33272-85-4 33272-86-5 33272-87-6 33293-94-6 33293-95-7 33293-96-8

(coatings, on lithographic printing plates,

photosensitive)